Perspectives on nonformal adult learning

by lyra srinivasan

functional education
for
individual, community, and
national development

This is the first in a series of monographs devoted to functional, integrated, nonformal education programs that are designed to promote individual growth, community action, and national development.

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foreword

The demands of a developing world have in the past thirty years given us a new appreciation of nonformal ways of providing education for adults who either have not had access to formal schooling or whose formal education has proved inadequate or irrelevant. In some areas of the world, where a new push toward development demanded the participation of millions of uneducated adults, the existing formal institutions were incapable of undertaking a task of such magnitude. In other areas, large sections of the population found that the formal systems had not given them the skills they needed to compete successfully in technological societies.

At the same time, a radical change was taking place in our understanding of what education needed to provide. Development itself had come to be recognized as far more than an extrapolation, or even an adaptation, of the Western industrialized model. Development, as we now understand it, is concerned, and must be, with the whole person and the relationship of that person to his or her environment. The problems of development and their solutions

are both interlocking and interdependent. Environmental issues, problems of energy, consumption, hunger, and production cannot be separated from issues of individual human development. And education that can foster human development must be concerned with these other issues.

Changes have been taking place as well in our understanding of the learning process: how and why people learn. Influences for new concepts have come from many fields–from the social sciences, psychology, ethics, contemporary theology, commerce and industry, and from new communications media as well as from education. The educational process has stretched beyond structured systems into a new configuration of widely separated strands of thought and experience.

Lyra Srinivasan pulls these strands together for us in this monograph, the first in our new series on functional education for individual, community, and national development. She draws on her years of experience in many parts of the world to share her growing understanding of the needs of nonformal education and what may prove useful to fulfill these needs.

World Education is privileged to have played a part in the development of most of the programs Dr. Srinivasan describes. This has been made possible by the support of the Education and Human Resource Division of the Technical Assistance Bureau and the Office of Population of the U.S. Agency for International Development, Oxfam, the Noyes Foundation and the Arca Foundation, and the Division of Adult Education Programs of the U.S. Office of Education. We are also grateful to the Office of Private Voluntary Cooperation of A.I.D. for underwriting the costs of the publication of this monograph.

Dr. Srinivasan would have liked to have been able to engage in dialogue with the educators cited here, and to have incorporated their responses to her personal interpretation of their positions or programs. Since this was not possible in all cases, we hope to be able to gather such reactions and publish them in our quarterly magazine, World Education REPORTS. It is just such an exchange

of thought that Dr. Srinivasan hopes to provoke. We share her belief that through consideration and discussion of experience, exchanging our differing viewpoints, we can continue to grow in our understanding of and our ability to contribute to the field of nonformal education for adults and lifelong learning opportunities.

—Thomas B. Keehn
President, World Education
February, 1977

introduction

Much of what is currently being written on nonformal education focuses on its organizational aspects. I propose to take a different route, at some risk.

Leaving aside questions of auspices, funding, duration, accreditation, or links with formal school systems, I wish simply to present some ideas on the learning *processes* of nonformal education as I see them. These ideas are essentially points for discussion and hypotheses for examination. The growth of learning theory depends on the expression of individual convictions and then on critical examination and challenges to these convictions. If this monograph does nothing more than stir up questions and invite inquiry, it will have served its purpose.

The field of nonformal education, especially as it is evolving in the developing world, includes a vast range of activities. Attempting to find useful common denominators for the whole assortment of activities is almost futile: we end up with definitions only

peripherally relevant to our analysis, such as that "all nonformal education takes place outside the school system." By selecting only a small segment and dissecting it down to its most sensitive nerve centers, we stand a better chance of uncovering facts and insights directly helpful to the understanding of the educational (or learning) processes that concern us.

The format of this monograph is very simple. There are three main sections. The first one identifies the various forces that have converged to give nonformal education the distinctive characteristics that distinguish it from traditional formal schooling. A review of these influences draws attention to their common ground as well as to conflicting opinions and unresolved issues.

The second section explores three approaches to nonformal education that have been developed to meet the basic educational needs that current thought has identified: the need to strengthen the problem-solving capacity of learners; the need to equip them with coping skills to deal more effectively with their environment; and the need to develop the individual's inner potential and to strengthen the positive awareness of self as a basis for practical action. Examples are primarily drawn from nonformal education programs in which World Education has played a role: in Thailand Ethiopia, Bangladesh, Ghana, Turkey, the United States, and the Philippines.

The third and final section presents my own assumptions based on the experience I have had working with these approaches. An appendix supplies sample exercises I have devised and found useful for the training of trainers and field staff. Other appendices include examples of learning materials, some sample forms for recording feedback, and brief descriptions of the nonformal educational projects that I discuss in this monograph.

—Lyra Srinivasan

1. recent influences on adult learning theory

The significance of much of the experimentation in training trainers and frontline staff for nonformal education becomes clearer and acquires depth when examined in the light of emerging concepts of learning as a process.[1]

The ideas of two educators, Ivan Illich and Paulo Freire, have been among the most influential in this new field of nonformal education. But I believe it would be a mistake not to look beyond Illich and Freire at some of the others who are affecting the thinking of educators and trainers. Each of these has been, in his own way, revolutionary.

I would include among these outstanding innovators names such as Carl Rogers and Abraham Maslow of the humanistic school of psychology, with its focus clearly on the inner world of experience; and, by contrast, some of the behaviorists, in particular psychologist B. F. Skinner, whose primary concern has been with observable human responses to the outer world, as well as the educators Jerome Bruner and Malcolm Knowles.

The Call for Social Reform: Illich and Freire

Ivan Illich and Paulo Freire attack traditional styles of education from different angles, but they both start from a concern for the dignity and worth of the individual and for the liberation of men and women from an oppressive or exploitative environment.

Illich calls for a cultural revolution, believing strongly that the mere revision of the formal school system will not result in the regeneration of society he seeks. In fact, at the root of the problem of an uncreative, stunted milieu, according to Illich, is the exaggerated importance attached to credits and certification, the educational monopoly claimed by schools, the tendency to "confuse teaching with learning, grade advancement with education, a diploma with competence, and fluency with the ability to say something new."[2]

The value that Illich attaches to creativity as an attribute of a freely growing, fully expressive society, makes him particularly critical of the traditional role of the teacher. In this, he is close to Freire (although Freire launches his attack on traditional schooling from a more political standpoint, speaking in terms of the "oppressor" and the "oppressed").

Both reformers contend that the teacher-dominated system of education robs the learner of his self respect. The way in which the teacher deals with his pupil cancels the safeguards of individual freedom, claims Illich. "When the schoolteacher fuses in his person the functions of judge, ideologue, and doctor, the fundamental style of society is perverted by the very process which should prepare for life. A teacher who combines these three powers contributes to the warping of the child much more than the laws which establish his legal or economic minority, or restrict his right to free assembly or abode."

What gives the schoolteacher such power over his learners? A false assumption, Illich believes: the assumption that there is a secret to everything in life, that the quality of life depends on knowing that secret, that secrets should be revealed only in orderly succession, and that only teachers can properly reveal these secrets.

At least half of the world's people never set foot in school and perhaps have no direct contact with teachers. Yet, Illich points out, adult illiterates learn quite effectively the demeaning message that our educational systems teach: that in order to amount to something, people must depend on schools to unlock all doors. Furthermore, the schools reinforce the adult illiterates' sense of inferiority by demanding that they provide for schools through taxes, while the bureaucracies of the educational systems raise their expectations for what those schools can provide and their children are taught to confirm the demagogues' claims.

Accordingly Illich advocates as a solution the "inverse of school,"[3] where the learner will establish new relationships with his environment and choose what and from whom he wants to learn. This, he believes, would undo the monopoly that teachers generally enjoy as the sole legitimate dispensers of "right" education.

Traveling a different route, Freire comes to a similar conclusion: learners need to be liberated from the oppression of the traditional teacher. But Freire's solution is to evolve a style of teaching which, in itself, is intrinsically liberating.

Through education, adult illiterates must arrive at a new awareness of their own selfhood and start to look critically at their own social situation in order to take steps to change the society that has previously denied them an opportunity to participate. Thus, for Freire, education in its true sense is, and should be, a revolutionary force.

But if it is to serve the purposes of social revolution, education must first be capable of helping man become more aware of, and responsible for, himself and his world through a process of reflection followed by action and further reflection. This, he calls praxis.

Unlike Illich, Freire does not blame social atrophy primarily on the school system. Freire traces the root causes of apathy and ignorance to class oppression and to what he sees as the mistaken paternalism of society as a whole. The class structure of present-day society, he claims, does not encourage or equip the poor to know and respond to the concrete realities of their world. Rather,

the oppressed are kept locked into a situation where the development of their own critical awareness and response is practically impossible. This he calls the "culture of silence" of the dispossessed.

Thus the school, though not entirely to blame, is viewed by Freire as a major instrument in maintaining that culture of silence, because it fails to encourage critical analysis of reality, egalitarian dialogue, and the mutual humanization of teachers and learners.

Freire's main contribution to the field lies in the concept of *conscientização*, which has been translated as "conscientization"– a word coined to describe the arousing of man's positive self-concept in relation to his environment and society through a "liberating education" which treats learners as subjects (active agents) and not as objects (passive recipients). A liberating education must accordingly shed the elements that perpetuate the dichotomy of one set of people in positions of prestige and authority, the oppressors, and the others in positions of dependence and inferiority, the oppressed.

To help the peasant break away from traditional fatalism and feelings of powerlessness, Freire emphasizes reflective thinking as the crux of the educational program. He then introduces the concept of praxis (reflection/action/reflection) as man's real function: men and women are not objects to be manipulated but are active, creative subjects with the capacity to examine critically, interact with, and transform their worlds.

Since teaching style seems to be a key factor in this process, Freire offers a detailed analysis of the shortcomings of the prescriptive style of teaching. This is perhaps his most direct and practical contribution to nonformal education ideology.

In prescriptive or directive teaching, the teacher assumes an authoritarian role as the one best qualified to prescribe what the learner should learn and how he should think and behave. The teacher acts as the guardian of the secret, as Illich describes it. This authoritarian role tends to diminish the learner as a human being. Thus Freire claims that "every *prescription* represents the imposition of one man's choice upon another, transforming the

consciousness of the man prescribed to into one that conforms with the prescriber's consciousness."[4]

Freire is unsparing in his attack on this prescriptive kind of teaching, which he refers to as the "banking system." His criticism has found a good measure of support among nonformal educators around the world.

In the banking system of education, the main transaction, according to Freire, is the act of transferring information from the teacher's head and depositing it in the students' heads. The students are thus the depositories and the teacher is the depositor. Certain traditional teaching attitudes and practices are logically deduced from this premise.

Freire describes them as a system of domestication which reflects the oppressive nature of society as a whole:

1. the teacher teaches and the students are taught;
2. the teacher knows everything and the students know nothing;
3. the teacher thinks and the students are thought about;
4. the teacher talks and the students listen—meekly;
5. the teacher disciplines and the students are disciplined;
6. the teacher chooses and enforces his choice, and the students comply;
7. the teacher acts and the students have the illusion of acting through the action of the teacher;
8. the teacher chooses the program content, and the students (who were not consulted) adapt to it;
9. the teacher confuses the authority of knowledge with his own professional authority, which he sets in opposition to the freedom of the students;
10. the teacher is the subject of the learning process, while the pupils are mere objects.[5]

In opposition to this "domesticating" system, Freire suggests a problem-posing education which breaks the vertical patterns characteristic of traditional teacher/student relations and establishes horizontal dialogue. Thus, in Freire's *conscientização:*

–no one can teach anyone else;
–no one learns alone;
–people learn together, acting in and on their world.[6]

There is no longer an authority-dependency relationship. Instead of domesticating, the learning experience provides adults with opportunities for critical analysis of their environment, for deepening their self-perceptions in relation to it, and for building confidence in their own creativity and capabilities for action. It has been observed that even literacy when approached from Freire's standpoint is transformed from a mere technical skill into a component of a process that implies values, develops mentalities, and leads to social and political consequences.

Teachers and students thus become jointly responsible for a process in which all grow. The philosophical assumption is that men and women as conscious beings are capable of reflection on and critical intervention in reality. Education must therefore increasingly challenge them, move them to authentic and critical reflection, thereby increasing the scope of their perception, and evoking new challenges and commitment to their spontaneous action upon reality. This whole process is described by Freire as one of humanization–the pursuit of full humanity–which he identifies as man's historical vocation.

Although many educators do not agree with Freire's socio-political orientation, his ideas on conscientization and problem-posing education have profoundly affected the concepts underlying a number of nonformal education programs. Several projects have also adapted and adopted such conscientization techniques as the use of pictures to represent life situations ("coded existential situations") with which the learners readily identify and which provoke them to reflect on their reality; or the use of generative themes and meaning-loaded words drawn directly from the learners' own vocabulary as aids to critical reflection and as a starting point for the learner's use of literacy.

The idea of generative words is not unique to Freire. It is central in the learning system of another educator, Sylvia Ashton-Warner. Her many years of experimentation have confirmed the value of building learning experiences around words that have

intense meaning for the learners themselves. Such words prove to be a powerful motivational aid in learning to read, for example. More that that, according to Ashton-Warner, they are the key by which the learner "unlocks himself" and opens up new vistas from his inner world. Because Freire's and Ashton-Warner's ideas on generative words and themes are so similar, some projects have combined ideas from both sources in designing innovative rural education for adults. Examples are the experiments in Ecuador and Honduras combining simulation games with the teaching of literacy.

Similarities to these ideas may be traced in the materials used in functional education programs in Thailand, Bangladesh, Ethiopia, and Ghana, for example. However, what has been borrowed or adapted in these instances, are some of Freire's techniques for establishing dialogue and engaging the learner in reflection rather than the more political connotations of his approach. The *khit-pen* philosophy of the Thai nonformal education program, for instance, stresses the Buddhist ideal of harmony through reducing conflict between man and his environment, even to the point of adjusting to (rather than rebelling at) conditions which resist change; the underlying attitude here is very different from the subversive or revolutionary quality which Freire believes should characterize education in its true sense.

Self-Determination: Rogers and Maslow

Several decades before Freire and Illich began their call for a new and totally liberating style of education, terms such as "nondirective learning," "self-awareness," "self-actualization," "client-centered therapy," and "right to self-direction" had begun to appear in the works of psychologists and psychotherapists within the humanistic school of thought. In many respects the basic philosophy and techniques of counseling developed by psychotherapist Carl Rogers, for example, in the early 1940's, show insights very similar to those which today are labelled revolutionary or at least highly innovative as if they were freshly discovered.

From client-centered therapy, Rogers moved into experimenta-

tion with nondirective teaching, using the same principles of self-determination and self-direction:

"If in therapy it is possible to rely upon the capacity of a client to deal constructively with his life situation, and if the therapist's aim is best directed towards releasing that capacity, then why not apply this hypothesis and this method in teaching? If the creation of an atmosphere of acceptance, understanding and respect is the most effective basis for facilitating the learning which is called therapy, then might it not be the basis for the learning which is called education? If the outcome of this approach to therapy is a person who is not only better informed in regard to himself but who is better able to guide himself intelligently in new situations, might a similar outcome be hoped for in education? It is questions of this sort which plague the counselor who is also a teacher."[7]

The team of psychologists who, under Rogers's guidance, began to adapt this orientation to classroom situations, met with great difficulties at first. There were no guidelines or blueprints available. Rogers found, however, that the quality of learning that often resulted from the client-centered approach was so different from what was going on in the ordinary classroom that further experimentation seemed to be necessary. The result of these early experiences was a growing realization of the revolutionary potential of the student-focused approach.

The underlying principle of this approach is that it is the teacher's responsibility to encourage and to help nurture the learner's capacity for self-direction and fulfillment. The teacher's attitude must be rooted in faith that, given the right conditions, learners will demonstrate the will and capacity to grow, to engage in self-directed inquiry, to work towards mastery, and to express themselves creatively. Giving up the traditional authoritarian stance and establishing a new relationship with learners as peers are thus the first steps towards creating the climate conducive to learner growth.

Although Rogers uses the term "student-centered" to describe this style of teaching, it is not totally permissive. The teacher, leader, or resource person is responsible for providing some structure and therefore plays a dual role as member of the group and as

a flexible operational leader. The leader's functions in a student-centered program are listed by Rogers: The leader sets the mood for group participation by communicating in many subtle ways his genuine trust in the group. He helps members of the group to clarify their individual aims. He maintains a climate of open acceptance. He helps in making resources accessible but relies on the motive power of the group to use them in ways that are most meaningful to them. He is flexible and can change his role to interpreter, arbiter, or plain participant as needed. Above all he is genuine in his relationship with the group.

This philosophy is restated by Rogers thus:

–If the individual or group is faced by a problem;
–if a catalyst leader provides a permissive atmosphere;
–if responsibility is genuinely placed with the individual or group;
–*then* responsible and adequate analysis of the problem is made; responsible self-direction occurs; the creativity, productivity and quality of product exhibited are superior to results of other comparable methods; individual and group morale and confidence develop.[8]

More than two decades later Rogers's principles were echoed in a listing of desirable educational principles in Unesco's report, *Learning to Be*, prepared by the International Commission on the Development of Education. The Commission strongly recommends that educational activity should be centered on the learner, in order to allow him "greater and greater freedom, as he matures, to decide for himself what he wants to learn and how and where he wants to learn it and take his training."[9]

Within this same stream of humanistic psychology come the writings of Abraham H. Maslow, from whom I have borrowed the term "self-actualizing." For Maslow, self-actualization is full humanness, just as for Freire liberation is humanization. Maslow, however, emphasizes not the overcoming of external oppression but the expansion of self, including the release of inner nature or tendency for good; a steady increase in understanding of people, of the universe, and of self; increase in self-acceptance; use and

enjoyment of talents; awareness of inner growth; increase in autonomy; and finally, proceeding from the above, greater power to shape and alter the environment. The last of these points is a logical outcome of the others. Maslow suggests that a better way of life is possible when people become capable of perceiving themselves in new ways, both in terms of their own private psyches and as social beings. Inner growth encourages exploring, experiencing, choosing, enjoying, transforming, and doing. Positive action is thus an expression of positive perceptions and feelings, and in this sense, "self-actualizing behavior" is expressive, rather than just coping, behavior.

Humanist vs. Behaviorist Positions: Bruner and Skinner

The distinction suggested here between self-actualizing, expressive behavior on the one hand and coping or problem-solving behavior on the other is most important. Although they are not mutually exclusive, when programs place particular stress on one or the other of these two concepts, clear distinctions in methodology may be observed. The specific ways in which this dichotomy affects curriculum and teaching methods will be dealt with in greater detail in the following section but at this point, it may be useful to consider some general issues arising from the differences in the humanist and behaviorist viewpoints.

How compatible, for example, is the concept of a structured curriculum and pre-packaged materials with the idea of the learner's freedom of choice, liberation, or self-actualization? To what extent is nondirective teaching feasible and realistic for the average teacher, and is there such a thing as "nondirective" teaching in the absolute sense?

On the other hand, can the required mastery of technical knowledge and skills be assured when the style of teaching is deliberately permissive and focused on the learner's internal growth needs? Is there a place in nonformal education for straightforward imparting of information and logical step-by-step progression of subject-matter mastery?

Contrasting positions on some of these issues are evident in the writings of educator Jerome S. Bruner and B. F. Skinner, both of Harvard University.

Bruner contends that since learning and problem solving depend upon the exploration of options, instruction must be designed in such a way that it encourages and enables learners themselves to explore alternatives. Learners would then be more likely to develop independent skills and confidence in their ability to perform on their own. This does not mean the total rejection of the teacher's regulatory role but the creation of the conditions in which learners can grow in ability to undertake necessary corrective action themselves. An underlying assumption here is that cognitive learning takes place best when inquiry is prompted by the learners' own motivations, and when the learners are relatively free from the influence of external rewards and punishments. Bruner describes this as the "autonomy of self-reward."

Skinner, a behaviorist, believes that we should not attribute human behavior to nonphysical affective states. Feelings, attitudes, intentions, and ideas simply accompany or follow behavior. They do not cause behavior. According to Skinner, behavior must be seen as a product of interaction with the environment.

To understand the cause of behavior we must investigate antecedent external circumstances. The way a person behaves and the practical consequences of that behavior form part of an observable, physical system. And the system can be controlled by programming positive and negative reinforcements.

What are the implications of this position for educational strategy? Skinner advocates what he calls a technology of behavior which shifts the responsibility for conduct and achievement from the individual to the environment. In this technology, positive and negative reinforcers must be designed and used with precision. If we accept, as fact, that behavior is explicitly controlled by stimuli in the environment, we can influence behavior by externally controlling the stimuli themselves.

Skinner rejects free-wheeling, autonomy-oriented or permissive practices in education on the grounds that their advantages are an illusion. "To refuse to control," he claims, "is to leave control not

to the person himself but to other parts of the social and nonsocial environment."[10]

This position is so radically different from that of the humanists that it would seem as if teaching strategies derived from each of these schools of thought would be irreconcilably different. Yet several features of programmed instruction based on behaviorist concepts appear to have been used by Freire as well as in some programs influenced by Freire's ideology. These similarities may remain at a somewhat superficial level, yet they deserve more than a passing mention.

Learning materials based on the behaviorist view of learning generally conform to certain specifications.
For example:

1. Objectives must be clearly stated in specific and measurable behavioral terms.
2. The learning tasks must be analytically designed in relation to desired end behaviors.
3. Content must be broken into small steps which are easy to master. These steps must be designed to encourage self-instruction and require an overt response by the learner (e.g., filling in the blanks or selecting a response from multiple options.)
4. The materials should provide a means for immediate feedback so that the learner will know if his response was correct and so that he can be aware of the pace of his progress.
5. The subject matter and activities must adhere to a set sequence and process conducive to mastery.
6. The successful completion of each step and the chain of steps must provide its own reward or incentive.
7. The responsibility for ensuring that learning takes place must rest with the materials themselves as learning instruments and not with any instructor leader, or helper.

In the Freire conscientization methodology the learner is presented a stimulus in the form of a drawing or photograph. This stimulus carries a coded message, representing some one aspect of the learner's environment. This coded representation of a specific

aspect of the external reality is part of a whole series of stimuli which the learner must decode step-by-step until he gains a better understanding of the larger environment. These coded situational units and sequences in the Freire approach may be viewed as corresponding to the closely interrelated series of small tasks, steps, or frames in programmed instruction. In both, the task is to decode the message and master its content implications, and then to carry this understanding into the decoding of the next frame. In both the learner responds with overt behavior. Both techniques include instant rewards for behavior which move the learner forward along the path of understanding. In both techniques, the content of each step is determined on the basis of how much a learner can comfortably handle at a given point, so as to reward or reinforce behavior with a sense of mastery. At this point the similarity between the conscientization methodology and programmed instruction ends.

In drawing this mechanistic parallel between the Freire system and Skinner-influenced programmed instruction, I have bypassed an important ingredient: the affective component in Freire's approach. This affective element, which Skinner tends to discard as irrelevant, is, in Freire's view, vital to the process of liberation. The end products of Freire's system may be summed up in terms of attitudes, feelings, and perceptions that provide the dynamics for action, not the mastery of content as such. It is the feeling of self-worth, the perception of oneself as an agent of change, the desire to be liberated, the enjoyment of dialogue, that contribute to changing the learner from an object into a subject and that promote action.

Andragogy: A Technology of Involvement: Knowles

The theory of andragogy as developed by Malcolm Knowles combines elements from humanist psychology with a "systems approach" to learning. Knowles describes andragogy as the art and science of helping adults to learn. Like the humanists, he believes that the greatest learning takes place when teaching methods and

techniques involve the individual most deeply in self-directed inquiry. The underlying assumption in andragogy is that the adult learner has a deep psychological need not only to be self-directing but also to be perceived by others as being self-directing. Therefore, teachers should not impose their will or their views on adult learners; rather, suppressing the compulsion to teach, they should place responsibility for learning in the hands of the adults themselves.

Knowles believes that ego involvement is the key to successful adult education. Accordingly, we must develop educational techniques to enable adults to assess their own needs, formulate their own goals, share responsibility in designing and carrying out learning experiences, and evaluate their own programs.

In this whole process the role of the teacher is that of a professional technician and guide as well as a subject-matter resource. Teachers ensure that the learning environment is rich enough for the group to extract significant learning. Teachers also maintain the conditions of group interaction in which individuals can derive maximum personal benefit from being part of the group. Good teaching is good management of the interaction between two key variables: the learner and his environment.

The learning design must be planned as a sequence of activities that involve the whole group in decision making about learning gaps, content, and strategies. The group decides which techniques and materials are most appropriate and effective for achieving specified goals.

Four steps in this process illustrate the systematic way in which, according to Knowles, learning sequences are to be designed.

1. The first step is for the group and the leader jointly to construct a model of the kind of behavior, competencies, or characteristics a learner would need to perform well in a specific role, for example, the characteristics one would need to qualify as a "good" parent, "good" supervisor, "good" farmer, or "good" public speaker.
2. The next step is to provide, in the curriculum, experiences that help learners assess their present competencies and abilities as compared with the model. A variety of techniques—

including sociodrama, "critical incident" episodes, laboratory methods and simulation, could be used to promote such experiences.

3. Third, the leader helps the learners experience dissatisfaction at the gap between the model and their present performance level.
4. Finally, based on this dissatisfaction, the learners would identify specific directions for desirable growth. They would thus be self-motivated to learn and would more easily accept responsibility for directing their own learning.[11]

Relevance of New Trends to Nonformal Education

Several unresolved issues emerge from this discussion of current learning theories. Some theorists see learning as primarily an intellectual, rational, and cognitive process–as a problem-solving process. Others see learning as basically the result of developing motivation through greater self-awareness and a more positive concept of self. Such considerations have a variety of implications for curriculum planning, teaching methods, and program implementation. Nonformal education offers the opportunity to clarify these issues through field level innovation, analysis, and evaluation.

The sharp contrast drawn between these two conceptual positions in no way implies that one is better than the other. The choice of curriculum strategy obviously depends on a project's aims and objectives. Accordingly either position, however extreme, may be the one best suited to achieve desired results in a specific context.

Moreover, nonformal education projects are not static, they are constantly evolving; even their objectives are subject to change as new insights into the learning process are gained through field experience. Instead of being inflexibly committed to a particular curriculum strategy, the tendency is to stay open to ideas and to move along a continuum of developing learning theory. Thus, in practice, the incorporation of new ideas from both sides reduces the distance between these two extreme positions and enriches the understanding educators have of the learning process.

Group Process Techniques

So far we have talked primarily about relationships between teacher and learner and, in that context, about directive and non-directive materials. Only passing reference has been made to techniques that incorporate these theories. Such techniques are based on group interaction as a medium of learning.

The trend toward reducing the distance between teacher and learner is accompanied by an increased interest in the processes of group interaction and peer learning. Many national and international agencies have begun to acknowledge the usefulness of group dynamics as a means of reinforcing the process of individual learning and development. Jack Mezirow of Teachers College, Columbia University, sums up the emerging attitudes toward the use of learning groups in World Education-assisted programs: ". . . learning in groups is generally the most effective means for bringing about changes in attitudes and behavior. The reasons are fairly obvious. In a group, competition for respect mobilizes a member's energies, the social support stimulates thinking, and the sifting of ideas in social interaction serves as an error-correcting mechanism."[12] Moreover, the experience of interacting with a group gives an individual the opportunity to try out new ideas and develop self-confidence.

Among the new techniques involving group activities, many have potential applications to nonformal education. Among them are: brainstorming, human-relations training, motivation training, synectics, and simulation games.

Brainstorming. "Brainstorming," developed by Alex F. Osborn, is a technique for generating new ideas by capitalizing fully on group resources rather than relying on the ideas of a single leader or a few vocal participants. Now used in many programs for the training of trainers in nonformal education, brainstorming helps to convince participants, in a direct and often quite dramatic way, of the value of the whole group in the generation of ideas. The more diverse the membership of the group, the more wide-ranging are likely to be the ideas contributed for problem solution, provided the

basic brainstorming rules are observed. The basic guidelines are simple:

1. All members of the group are encouraged to contribute ideas.
2. All ideas are accepted immediately without criticism or evaluation. This is vital to encouraging participation.
3. Contributions are recorded for all to see. This helps to establish what each member is thinking, feeling, and perceiving, and it also convinces the individual of the worth attached to his contribution.
4. A large number of contributions is encouraged. Group members are asked to share all ideas that come to mind regardless of how appropriate they may seem. The assumption is that the more ideas spontaneously shared in the shortest possible time, the more likely is the group to arrive at a potentially useful idea to resolve the problem at hand.
5. Criticism or judgment is deferred until the group has practically exhausted itself of ideas. Then judgment and selectivity are exercised in a way that does not discourage any member from future participation in brainstorming.
6. Participation is rewarded by recognizing that the final solution is the result of the entire brainstorming process in which all contributions have played a part.

Human relations training. Techniques developed recently by the National Training Laboratory in Group Development in Washington, D.C. have proved directly useful in a number of ways for nonformal education programs. They are mostly used in connection with staff training but the same techniques would be adaptable for groups of adult learners in nonformal education programs.

The central objective of human relations training is to help individuals better understand themselves and their relations with others. The training encourages learners to participate in problem-solving experiences and to reflect on the way they participate. From this has emerged the notion of group self-study as a basic mode of learning.

The listing that follows sums up the underlying strategy of the National Training Laboratory. It closely parallels some of the in-

sights about adult learning that are emerging from the experience of nonformal education programs in the developing countries.

1. Learners may acquire knowledge but that in itself does not guarantee that they will adopt a particular desired behavior.
2. Knowledge about the processes of changing attitudes has to be sought and utilized in addition to knowledge about the processes of acquiring information.
3. In programs that seek to change behavior as well as to provide increased knowledge, methods of training have to be developed that will involve participants in the training more deeply than would be necessary if gaining knowledge were the only objective. Only by deeper involvement can deep-seated resistance to change be overcome or greater readiness for change be induced.
4. Such involvement requires participation in problem-solving experiences in which the ultimate solutions demand that the trainee acquire a better understanding of himself, his roles, and his relationships, as well as of the external problem situation of which he is a part.
5. Participants need help in formulating and testing out new patterns of behavior and they need to gain confidence in their ability to enact them.
6. Individual and group self-study must take into account not only concrete observable behavior but also the underlying values, feelings, attitudes, beliefs, and disposition to action or otherwise, the tendency to control or be controlled by others, the management of anger, the conflict between personal gain and cooperation, and both the need and ability for self-expression. Clarification of these elements through group self-study opens the way for more effective learning and personal development.

Motivation training. Can group interaction and support be helpful in the development of "entrepreneurial" spirit? As part of their long-term study of the characteristics of persons who are "high achievers," David C. McClelland and a team of psychologists have designed pilot training programs to test methods of promoting

high motivation and entrepreneurial behavior. They have found the key variable in these studies to be what they call "the need to achieve." Group training strategies based on McClelland's approach have been incorporated into nonformal training of rural leaders in a Unesco project in Honduras.

The four basic objectives of the Honduran training courses are listed below:

1. To teach participants how to think, talk, and act like persons with a high need to achieve.
2. To stimulate participants to set for themselves high but carefully planned goals over a specified period of time.
3. To increase participants' knowledge about themselves.
4. To create a group spirit among participants–from learning about each other's hopes, fears, successes, failures, and from sharing an emotional experience in a retreat setting.

Group interaction is guided in such a way that participants reinforce each other's striving toward individual goals. The group thus constitutes one element in an ever widening network that supports the individual's need to achieve.

Change in individual behavior, however, takes place essentially through introspective processes: each member must examine his own motives, values, attitudes, fantasies, and aspirations and involve himself in creative problem-solving and risk-taking experiences. The group, acting as a mirror, provides feedback helpful to individual members in examining their own behavior and in increasing their effectiveness in attaining the goal they have set for themselves.

The achievement motivation approach has much to offer those wishing to innovate further in nonformal education. Its potential in combination with other strategies has yet to be fully explored.

Synectics. Synectics, a term derived from the Greek *synektikos*–"fit to hold together," or the joining together of different and apparently irrelevant elements–is said to have been first used by W. J. J. Gordon, founder of the Cambridge Synectics Group, Cambridge, Massachusetts. He uses the term to describe a method of directing creative potential imagination to the solution of technical

and theoretical problems.

First tested to help solve problems in industry, synectics is now being used in a variety of formal and nonformal learning situations, although, by and large, the assumptions of synectics theory have not yet been tested in the developing countries.

Experimentation is helping, however, to uncover the psychological processes basic to creative activity. It has also demonstrated that the mechanics of these processes can be acquired and used by individuals functioning as a group, if they are willing to abide by certain conditions. The conditions for releasing and optimizing creativity, identified by Gordon and his team, could be extremely valuable for further innovation in nonformal education.

Gordon believes that one important explanation for the lack of originality in problem solving is that people tend to rely on logical, rational thought processes. Rational thinking, according to Gordon, is evaluative and judgmental and tends to stay within "safe" zones where solutions "make sense," where they seem immediately workable. The solutions thus generated tend to be conventional and limited. Although Gordon does not deny the importance of logical thinking at the final stage of problem solving, he finds that it is not helpful in the generation of new ideas. Fresh approaches come about in a different way. The synectics system is intended to free the individual from the constraints of stereotyped and sterile thinking and to widen the scope of the search for solutions instead of beating up and down the same unproductive ruts.

Synectics seems to work best when the group includes persons with a wide variety of skills, interests, and personalities. Interaction among people with different or even conflicting views helps to escalate the search for new ideas. The procedures used in synectics groups force each participant to verbalize feelings as well as thoughts.

The synectics method for creative problem solving includes the following steps:

1. Problem solvers review the problem as given.
2. They restate the problem, trimming it down to essentials. This restatement is now the problem as understood.

3. They make a connection, a direct analogy, between the key element of the problem and some object or living thing in a totally different context.
4. From direct analogy they make a personal analogy–they identify with the new analogous object or living thing and imagine how it feels to be that object. Intensity of feeling is encouraged.
5. Next the group analyzes these feelings and perceptions in terms of intrinsic conflicts or contradictions and sums up the ambivalence in a two-word phrase.
6. Returning then to the problem as understood (step 2), they use the insights gained to get a new perspective on the problem.

The process may improve the group's chances of coming up with a new and unexpected solution. Furthermore, taking part in the process can be growth producing as an exercise in transcending one's routine self, in freeing the imagination to find new solutions.

In this process, the role of the teacher or group leader is restricted. The teacher or group leader simply keeps the group moving through each step of the process. Success depends on each participant's imaginative abilities and on the ability to verbalize thoughts and feelings about the problem.

One important contribution of synectics theory is the concept that new ideas grow out of emotional, nonrational processes. Rather than exploring a problem by examining feasible, probable, or logical solutions, the group focuses on feelings about the problem and its implications. In addition, by the device of analogies–especially through the technique of focusing on commonplace objects–participants can acquire new perspectives on elements of the problem. This technique, called "making the strange familiar," has its counterpart in "making the familiar strange," whereby a well-known but stubbornly resistant problem can be attacked with new vigor and fresh insight after relating it metaphorically to something distant and strange.

It is difficult to say how relevant the use of synectics may be to innovators in nonformal education; it does, however, throw a new light on the problem-solving process and calls into question our traditional reliance on purely cognitive learning.

Simulation games. For centuries, speech has been the principal vehicle for communicating knowledge, experiences, and ideas (especially in developing countries where printed materials are scarce and literacy is low). Next to speech, the visual image has provided access to knowledge. In keeping with this tradition of nonliterate communication, nonformal education programs today are making wide use of audio-visual aids, games, simulation (in which participants enact a familiar situation), role playing (in which they assume roles of persons whose viewpoints are different from their own)., discussion groups, demonstration areas, posters, films, radio, and other educational techniques that do not rely on the written word. Rural adult education now has a large array of such tools at its disposal, tools that have proved valuable in capturing people's interest and involving them in the learning process.

Experiments in the use of simulation games, games that reflect real life situations, are on the increase. A variety of simulation exercises and games for leadership training have been tested in Latin America by the United Nations technical assistance advisor in Honduras, the Center for International Education of the University of Massachusetts in Ecuador, and in Bangladesh and Ghana by World Education. Games provide relaxation and a welcome relief from routine, a change of pace, almost an escape. But if they build social or economic concepts and factual information they can also help initiate significant educational processes without losing their attractiveness and entertainment quality.

Educators find a number of advantages in using simulation games:

1. Many do not need special literacy and numeracy skills and some require no literacy skills at all. However, the games can encourage players to acquire such skills for keeping score or improving performance. In this way games serve as literacy and numeracy support materials.
2. Once introduced, the games can be played with little outside assistance; this is especially true of educational games that are based on traditional forms of entertainment.
3. When an educational or social value is added to a locally popular game, popular culture is enhanced by being recognized, valued, and used.

4. Group interaction and reflection on real life situtations can be stimulated by games that, in some way, mirror reality. For example, the game Hacienda (an adaptation of Monopoly now used in Ecuador), attempts to reflect the campesino's reality in a mildly irreverent way. It includes caricatures of exploitative community leaders, such as the local lawyer, landowner, or official. The inequities meted out by these leaders in everyday life can be challenged in a game with humor and without running the risk of serious repercussion. It may represent the campesinos' last chance to make their voices heard. Campesinos playing Hacienda stay with it for hours, arguing, negotiating, making deals, and generally enjoying themselves.
5. Educators who have designed games that are tentative, incomplete, and flexible have found that villagers are encouraged to collaborate in the creation and perfecting of the game. Such games permit villagers to play a role that gives them status and pride of authorship. Encouraged by success, local participants may then go on to produce other learning or entertainment materials of their own. For example, in Ecuador's nonformal education program, the initial set of 20 basic simulation games was created by project staff at the University of Massachusetts. After the first few months, however, local participants generated new ideas leading to substantial modification.

With all these advantages, the major difficulty presented by the use of games is that of integrating the games into a total learning experience relevant to the needs of the learners. Participants need to see themselves moving forward in knowledge just as they also advance in terms of social sensitivity, business sense, or civic consciousness. Games cannot alone do the job but it would seem that they have an extremely significant role to play within a well-integrated learning system. The challenge is to assure such integration.

2. approaches to adult learning

The clientele of nonformal education programs tend to have special psychological attitudes as a result of being deprived of schooling or having failed to complete it. These include a low motivation to attend classes; a sense of inferiority or inadequacy as learners; a tendency to be easily discouraged and drop out; a feeling of powerlessness in influencing environmental pressures and problems; an overly deferential attitude toward the teacher as a dispenser of wisdom; or skepticism about the meaningfulness and practical value of education in their lives.

Teaching subject matter alone is therefore not enough. To capture the interest of the learner, content must be relevant and convincing. Nonformal education programs for adults have approached these goals in differing ways.

Problem-Centered Approaches

A problem-centered curriculum focuses the learning experience on problems of the learner's daily life in order to demonstrate that

the knowledge acquired has immediate relevance and usefulness. But even so, motivation to learn is likely to be weak unless the adult can be encouraged to trust his own abilities and be directly involved in inquiry concerning the problem. Group discussion and critical thinking thus assume great importance. Since full and active personal participation in discussion is more likely when basic trust has been established, a confidence-building relationship between teacher and group is of the essence.

The following overview of a number of nonformal education projects that seem to meet these conditions, may serve to illustrate how the problem-solving approach works in practice.

***The Thai* khit-pen *concept*.** In 1970 the Ministry of Education in Thailand launched a program of functional literacy for family life planning that addressed itself to two immediate tasks: to encourage farmers to be more willing to accept innovations in their daily lives, and to teach technical skills. To understand the attention the Thai approach has steadily gained since the inception of the program, we will examine its philosophic base and what it aims to achieve, the strategies and materials it uses, and then will discuss the implications of this approach for teacher training.

Essentially, the aim of the Thai program seems to be the attainment of harmony and tranquility between the individual and his environment. Tension, whether physical or mental, results from conflict between man's values or aspirations and the environmental conditions obstructing their fulfillment. Equilibrium is reached when man either overcomes these obstacles or adjusts himself so as to eliminate useless striving.

This practical/philosophical approach to daily life is based on what Kowit Vorapipatana, now Deputy Director General, Department of Educational Techniques, Ministry of Education, has labeled *khit-pen*. The term *khit-pen*—literally "to think, to be" or "to be able to think"—was adopted by Dr. Kowit to describe the teaching strategies developed in the Thai nonformal education program. It includes but is not totally explainable in terms of critical thinking and problem-solving skills. Its relationship to learning is explained by Dr. Kowit in practical behavioral terms: "A man who

has mastered the process of *khit-pen* will be able to approach problems in his daily life systematically. He will be able to examine the causes of his problems. He will be able to gather the widest range of information on possible courses of action and weigh the merits of each option, based on his own values, his own capabilities, his personal situation, and the degree of feasibility of each solution."[1]

The assumptions underlying this educational philosophy are drawn directly from Buddhist philosophy: First, life is suffering; second, this suffering can be cured; third, in order to cure this suffering, the origin of the suffering must be identified; only then can those who seek solutions choose the right way or ways that will alleviate the suffering of the people.

These tenets are not difficult for Thai villagers to understand and accept. Ninety-five percent of the Thais are Buddhists and Thai culture as a whole is deeply rooted in Buddhist thinking. Suffering which has its origin in poverty and underdevelopment is also a familiar concept. What is less widely accepted and practiced, however, according to Dr. Kowit, is the principle of action to counteract suffering: too often the tendency of the poor is to shut out frustration and take refuge in the common Thai idiom–*mai pen rai* (literally, "it is nothing"). *Mai pen rai* expresses resignation to circumstances which stubbornly resist our best efforts to change them. Using the *mai pen rai* principle too quickly means avoiding responsibility to make even a minimal effort. The *khit-pen* man or woman, on the other hand, feels responsible for using human powers of analysis and reflection to get at the root causes of daily life problems, to consider optional courses of action or inaction and to choose, after due condideration, which option to pursue.

Thus active problem analysis and solution-finding rather than resignation to "fate" are crucial to the *khit-pen* philosophy. The educator's role is to assist in this process of problem confrontation as a way of achieving inner harmony.

But here immediately arise some challenges for the educational planner, and some contradictions to resolve. Thai adult educators have attempted to find empirical answers to questions such as:

1. Are the root causes of suffering always to be found outside the individual, to be uprooted with the help of technical knowledge and skills, or are some of these causes within the learner's own psyche?
2. Is it possible to adapt a syllabus that has been developed nationally or regionally and that emphasizes common problems or misconceptions, so that it can meet an individual's needs and help achieve the program's goals of harmony in that individual's personal universe?
3. If one essential problem-solving skill is for the learner to be able to gather a wide range of information needed for problem analysis and personal choice of solutions, how much of this knowledge should be made readily available to the learner in the curriculum materials? Should solutions, in fact, be presented in the teaching material or left open to be worked out by the individual in a group context?
4. If solving problems is to be achieved through systematic and rational inquiry and analysis, with an emphasis on the cognitive side of learning, what provision can be made for affective needs? What can curriculum planners do to ensure that learners can exercise imagination and creativity in problem solving? To what extent can spontaneity and originality be accommodated within a highly structured curriculum?
5. If an individual is to be able to choose his own "right way" based on his own careful reflection, and if he is to think through ways of applying solutions in his own situation, can the curriculum be designed to move at the pace of each individual learner or does the learner have to keep pace with the group?

Thai nonformal educators recognize that gaps in knowledge and lack of work skills are not the main obstacles to development in the rural areas. More frequently the hard kernel of such obstacles is the adult's psychological resistance to innovation, his reluctance to take risks. Lack of experience in successful risk taking aggravates the adult's low estimation of himself as a change agent. The desired behavior cannot, then, be expected to result from simple exposure to factual knowledge. The way in which knowledge and

learners are brought together must, in itself, be an experience that builds and reinforces motivation to assume responsibility.

How can a curriculum which is focused on practical life problems achieve this desired change in mind-set? How can it answer the challenges of its learners' special needs? "In nonformal education programs, especially in the rural areas, the people are not students by profession: they are farmers and fishermen, mothers and market-women. They already have enough problems of their own: the water-pump does not work, the birds are all over the field eating the paddy, the baby is sick. So the approach selected by the Thai nonformal youth and adult education programs focuses on the real and immediate problems of the learners."[2]

The Thai curriculum planners seem to have relied on four main strategies.

Strategy one. The first strategy was to determine before designing the curriculum what rural adults needed to learn and then to break down the concepts into units that are easy to handle. In this way the adult learner does not feel bogged down with a lengthy curriculum. One of the challenges cited by Dr. Kowit was to see that a learner would not have to go through a 300-hour course in mechanics to learn bicycle repair.

Baseline community studies and interviews have been used to identify content relevant to the daily life of the villagers. From the analysis of this baseline data and the plans and priorities of governmental agencies, the Thai curriculum draws out 73 concepts as points of intervention.

To reduce further the complexity of the rural problems being studied, the curriculum is divided into four main categories of content and these categories are subdivided into small, manageable segments. Thus by breaking down the 73 concepts and presenting in each day's discussion one single concept, learners can approach the analytic task with greater confidence. Each concept or skill is presented on an individual card, instead of in a bound primer, and represents one step in a series of steps as in programmed instruction.

On one side of each card is a photograph or drawing (Fig. 1) applicable to a life situation with a key word or two as its caption.

FIGURE 1

many children

many expenses

Rationale

Normally, families with low incomes have many problems to deal with; one of the most serious problems is the cost of living. If they were also to have many children, their already serious problems might even get worse. The whole family might suffer additional hardships and this would result in the deterioration of the family's health both physically and mentally.

Objectives

To encourage the learners to consider the advantages and disadvantages of having children under each individuals own circumstances.

Topics to be discussed

Do you agree with the saying that "a family with many children will be poor?"

Why?

Considering your own standard of living, do you think you should have a big or a small family? Please explain in detail.

The illustrations are also enlarged on teaching charts. They are chosen to help the student identify similar conditions or problems that affect his own life. On the reverse side of the card, is a brief statement about the illustrated situation to be used as both a reading exercise and as a summary for a projected classroom discussion about the concept depicted. The key word or words are repeated on the back of the card and are to be used in filling blanks or other programmed exercises. Adults should be able to acquire at least one new concept and to read at least one new word as a result of each day's session.

The card represents an increment of a concept; that is, it may not always cover a whole concept but it is a step towards the analysis of a useful idea.

Strategy two. The Thai designers also plan the learning units and discussion procedures in such a way that each session provides practice in problem solving. Students develop their critical capacity through dialogue about situations in their own lives about which they have insights and experience to contribute.

In an abbreviated form the following example illustrates the content of the problem-solving sequence.

> *Existing condition:* A large number of the people in the rural areas often build animal pens underneath their houses.
> *Problem:* The practice is hazardous to the health of those living in the house.
> *Possible solution:* Animal pens should be away from the living quarters. If this is not possible, special efforts should be made to keep the pens clean.

In the course of developing this sequential treatment, village adults learn to use problem-solving skills such as problem definition, establishing relevance of problem to self, fact finding, identifying and evaluating alternative solutions, determining priorities, and deciding on courses of action.

The photograph or drawing in each case is used to start class discussion and to help villagers identify similar conditions or problems that affect their own lives. Since the text is kept to the

minimum, it simply serves as a springboard for dialogue. Through this dialogue other generative themes emerge which reflect the learners' own concerns and needs. The learner thus gains in two ways: He becomes familiar with the problem-solving process through direct participation in it, and he is able to relate it to the solution of more personal problems not covered in the curriculum.

The sequence of treatment in a day's group discussion may be somewhat as follows:

The teacher uses a poster-size card to invite learners to establish relationships between the photograph or drawing of the problem and the key words given below it. Analysis is then continued in small "buzz groups," followed by whole-group discussion.

The small groups conduct their discussions independently of the teacher (who may even leave the class). The buzz group technique provides the individual with a mini-laboratory in which to test his ideas and to gain confidence in expressing them. The shared experiences in the larger group encourage open consideration of alternative solutions but still leave the individual free to make his own decisions. Thai educators point out that for this approach to be effective, dialogue must duplicate the conversational pattern used by village people in everyday life. It must be easy and it must be natural.

To reach a decision point, some variation of the following cognitive sequence may take place.

COGNITIVE PROCESS	CENTRAL ISSUE
1. Perceiving the nature of the problem.	
a. The existing condition is defined and the problem itself identified.	Does this condition really cause a problem?
b. The nature of the problem is investigated and its causes and effects rationally established.	What makes this a problem?
2. Perceiving the relevance of the problem to oneself.	
a. The way in which the problem may apply to oneself is considered, both personally and as a member of a group.	Is this our problem? How does it affect us?
b. Its relative priority is examined.	Is solving the problem a priority for us?

3. Perceiving the need to take the problem apart and resolve it.

a. Further data needed to understand the problem is obtained.	What can be done to resolve the problem?
b. Alternative solutions are proposed.	Which solution is best?
c. The relative merits and feasibility of alternative solutions are reviewed by learners as a group.	What can we do as a group?
d. Decision as to the best course of action is taken individually or, where appropriate, as a group.	What would we like to do individually? Or jointly? As a group?

The Thai curriculum encourages learners to collect data and undertake problem analysis by avoiding too explicit a definition of the problem. Each lesson thus accentuates the need for the learner to exert initiative in order to understand the problems and take steps to resolve them. The program emphasizes that solutions must be worked out by the learners themselves and are not imposed by the curriculum. While basic information for problem clarification is kept at hand (i.e., in the student's lesson cards and teacher's manual), essentially it is the learner's responsibility to decide for himself what action options, if any, he wishes to pursue. Dr. Kowit writes, "Having identified these causes of his suffering, the villager is then freed to choose his own 'right way' to find the solutions that apply to his own situation. Others can help him to understand the consequences of his behavior; but only he can make the final choice."[3]

Strategy three. A third strategy contributing to the effectiveness of this Thai curriculum is the consistent use of the picture/discussion format throughout the curriculum as a means of practicing repeatedly the basic techniques and skills of inquiry and problem-solving in order to build confidence in the use of the scientific method. It creates awareness of the value of the rational approach to practical needs. It also increases the chances of the adult learning not only how to meet environmental pressures in a systematic way but developing as well openness to new solutions. The transition from *learner* to *practitioner* is in fact dependent upon consistent and sustained growth along these lines.

At this point the skill of the materials designer is crucial: His job is to create a series of provocative materials (in this case, over 200 selected photographs and line drawings and texts) capable of promoting a consistent pattern of rational thinking and critical analysis even though the subject matter of each card is different. Repeated successes in resolving problems can have a cumulative effect. What must be done is to help the individual achieve small successes and to show that the techniques used to solve these problems can apply to a wide range of very different situations.

Strategy four. A certain amount of flexibility has been built into the curriculum so that it can respond to a variety of needs of the *khit-pen* man. In place of a rigid and standard primer, looseleaf folders are used in Thailand and in many other projects. Learners compile their own books by adding a page or two at a time at the pace at which they discuss and master each unit.

The flexible format of materials gives the teacher or facilitator leeway to adapt and adjust the program to local environmental conditions. A page focused on problems of rice cultivation, for example, may be left out when working in a wheat-growing area, but a page on health protective measures may prove equally relevant in both. It also permits the adaptation of the sequence to the specific interests of a learning group, and facilitates the incorporation of new concerns and problems identified by learners themselves during the course of learning. Materials are designed in such a way that they do not require a great deal of time or energy for class preparation.

Flexibility has been stressed throughout the Thai program in the organization of the classes as well as in the development of materials. Efforts have been made to ensure that class regulations are much more relaxed than in the usual primary school classrooms. Some of the classes are held outside the primary school classroom, on the temple grounds or at the teacher's home. When it is necessary to hold classes in primary schools, an informal seating arrangement replaces the traditional more structured arrangement. Sometimes learners are allowed to bring their children along to class. In addition, class hours and the timing of courses take

into consideration the convenience of the students. In a village, for example, where farmers leave their farms to work in other areas after the harvest season, classes are held during crop-growing time.[4]

Implications for teacher training. Many nonformal education programs have had unsatisfactory experiences in using traditionally trained primary school teachers as their front line staff to organize innovative learning experience for adults.

The one weakness adult educators frequently seem to find among otherwise dedicated school teachers is that their style of teaching adults is no different from the traditional way of teaching children in formal school settings. The main characteristic of the conventional teaching style is the domination of the students' thought processes by the teacher. A teacher lectures and then perhaps uses questions and answers to be sure that the students are involved in problem solving. But then there is a tendency to go right back to lecturing again. The consensus among nonformal educators is that persons who have fewer stereotypes as to what is "good" teaching in the formal sense, are more adaptable as teachers, and work better towards nonformal education objectives. Nevertheless, they do need training in adult educational methodology and this training itself has to be evolved through experimentation and feedback.

Because of the new orientation being given to adult educators, the need is often felt in nonformal projects to diversify the kinds of field staff utilized. Unesco's Saveh Project in Iran, for example, reports that in the first phase, it was difficult for teachers to implement the programs. Usually primary school teachers, they were accustomed to using an authoritarian and academic approach in their presentation. The project is now selecting and training community members to serve as instructors. It is hoped that they will be able to establish a closer rapport with their students and eliminate the tendency toward authoritarianism and abstract presentation previously encountered.

In the absence of qualified teachers, the programmed instruction format of the Thai text offers distinct advantages in reaching objectives of the curriculum. Thai educators have also found that

carefully spelling out procedures for conducting classes can produce a universally consistent output. Personal bias is minimized and the possibility that the instructor will revert to the lecture method is reduced. Detailed instructions also prevent teachers from going beyond their depth in the subject matter area. Furthermore, it helps to maintain focus on the subject at hand.

Accordingly, two teacher's manuals have been developed with detailed lesson plans and additional information. Special lead questions have been devised to help keep the discussion going.

The learner's text and the teacher's manual, however—no matter how expertly written—can never quite take the place of the teacher or facilitator. This is especially true in a learning process where group discussion plays a key role. Because the majority of the Thai teachers and supervisors in the first phase of the project were recruited from the Education Ministry's elementary education staff, and were generally unfamiliar with adult education, special training and follow-up programs had to be included as part of the project.

The assessment of traditional teaching styles in Thailand led to the conclusion that major changes would need to be made before teachers could function on *khit-pen* lines. It was also found that full mastery of the discussion technique, which is considered essential to the Thai adult learning process, was not easy for teachers to achieve.

To counteract the didactic tendencies of the traditional teacher, therefore, training was conducted in the form of workshops with a minimum of lecturing. Group discussions, learning by doing, and practical demonstrations all helped the teachers to understand ways to deal with adult learners.

Before the program began, trainers introduced the teachers to the new materials in a five-day workshop and encouraged them to use discussion of content as a primary teaching technique. However, five days proved to be not time enough for them to fully grasp the advantages of the methods and to gain enough practice in the discussion technique itself. Their first reaction was that the emphasis on discussion might actually slow progress in the class. But at the same time, since feedback is a built-in feature of such workshops,

participants playing the role of learners pointed out that the dominance of the teachers was actually squelching students attempts to participate.

To determine whether persons with less formal teaching background would do better, two volunteer youth leaders were then asked to play the role of teachers. Although they had only a minimum briefing, they proved capable of conducting the discussion in a much more relaxed and informal way and yet were able to maintain control, develop complete empathy with the students, encourage lively group discussions, eager reports, and were able at the end to summarize the lesson beautifully.

This experiment in 1971 did not immediately lead to an overhaul of policy but it was the first step towards further experimentation in the use of local youth leaders and in the more recent creation of a "Walking Teacher" category. Walking Teachers are persons from the village who "walk" their knowledge and skills to the places most convenient to adult learners. They may conduct discussion groups in one village for one or two days and then move to another village to do the same.

To improve teacher competence in Thailand and to emphasize the teacher's role as facilitator rather than dispenser of learning, training is designed in a series of short sessions. The first is a one-week preservice workshop, which includes a variety of loosening-up games, sensitizing exercises, case studies, role playing, and self-evaluation or feedback activities. Since particular emphasis is placed on learning from peers, every training session includes some analysis by the group of its own experience of interaction. After a discussion, for example, they analyze how they discussed the topic, what happened in the discussion, why it happened, and how they could change it by modifying their action.

Thai teacher training has effectively used a number of sensitizing and planning techniques:

1. The "fishbowl discussion." Participants are divided into groups, an inner group which discusses a specific topic and an outer "listening" group. For example, the inner group may be a planning and evaluation team while the outer group is a steering

committee which listens, analyzes, and translates into action.

2. Brainstorming, a training technique described on page 16, has also been used in training teachers for the Thai program. One group of teacher trainees, for example, may brainstorm on how to develop a more permissive atmosphere in dealing with rural adults. Using the approved techniques, ideas are written down as quickly as they occur to members of the group. They eliminate duplicate and less useful suggestions and rate the remaining ones. Participants then divide into sub-groups to discuss the narrowed-down list. Finally, they review the brainstorming session itself using criteria such as the following:

   Did we learn anything new through the brainstorming session?
   Were the concepts that resulted from the brainstorming sessions useful?
   Will they work in the teaching of rural adults?

   In a brainstorming session held at the end of a training session in Thailand, a World Education consultant asked participants to suggest ways to hold down the dropout rate in the Functional Literacy-Family Life Planning program. Their suggestions included: games, feedback (immediate), certification (medals/rewards), collecting money for coffee, collecting money for tobacco, movies, plays, free seeds from the Ministry of Agriculture for new crop introduction, field trips, getting children to tutor their parents, preselecting students for study, writing pen pal letters to students in other classes around the country, debated, stories, class projects, talks by religious leaders, and songs both in Thai and Malay.

3. Role playing. Teacher trainers, role playing as rural adult learners, take key words home and find out what meaning they have for their families, friends, and neighbors. They bring the responses back with them at the next meeting (next day) break into small groups to compare notes, and finally reassemble to share experiences. This has the double effect of creating individual and community awareness.

The objective in using each of these training techniques is, in

part, to reduce lecturing and incorporate procedures in order to show the advantages of lively participatory strategies. (It was found in Thailand, however, that again, it was not easy for all teacher-trainees to make the shift from didactic to participatory forms of teaching; also, some trainees consider that group discussion alone is a sufficient departure from traditional teaching; they feel that to add role playing, case studies and similar techniques in a course of short training, is confusing and clutters up the program instead of support it.) Free expression of differences of opinion is encouraged during teacher training sessions, just as teachers themselves will encourage adult learners to voice their personal viewpoints freely in group discussion.

Some of these training sessions incorporate staff at various levels such as administrator, supervisors, teachers, and youth leaders. Careful planning is therefore required to cope with time limitations, diverse roles of participants, and complexities of content. Practice teaching with a group of illiterate or semi-literate villagers, is a regular part of training. This is particularly aimed at improving teacher competence in conducting group discussions on such specialized subject matter as agriculture, health, family planning, or civics.

The specialist first briefs the group on the specific topic selected; then subgroups are formed for practice teaching purposes with one resource person attached to each group. In this way each participant has a chance to try out his newly acquired knowledge and skills in a practice lesson.

Analysis and evaluation of the experience is done continually as well as at the end of training.

Resource persons and specialists remain in the background as much as possible since their role is to encourage participants to think and act for themselves.

The schedule of the training workshop is kept flexible. This has proved to be one of its best assets. While good planning is needed, openness to rescheduling and change in the light of experience permits the workshop to grow and develop along with its participants on the basis of their needs, problems, expectations, and suggestions.

Variants of the Thai model. The systematic, yet reasonably flexible, method developed in Thailand has encouraged similar initiatives in other functional literacy and family life education projects. A number of other nonformal programs have adapted approaches that are essentially problem centered, notably in the Philippines (Philippine Rural Reconstruction Movement), Ethiopia (Ethiopian Women's Welfare Association), Bangladesh (Bangladesh Rural Advancement Committee), and Ghana, (Ministry of Social Welfare and Community Development). There are basic similarities in all of these: the use of loose cards rather than a bound primer; picture stimuli for discussion, whether photographs or line drawings; generative or key words associated with the stimulus; of literacy and numeracy exercises related to the key concepts and based on practical life needs; interdisciplinary subject matter drawn from agriculture, health, nutrition, civics, and family planning; content determined from needs uncovered in baseline surveys and broken down into small units, with one concept per card; programmed sequencing and gradation of lesson units; and a cognitive problem-solving orientation to discussion.

There are also differences. Both the Ethiopian and the Ghanian materials for example, use photographs which have been simplified and sharpened by omitting all or almost all background details. The Bangladesh materials use line drawings. The literacy component in Ethiopia is also more minutely programmed; that is, by carefully planning the pace at which new letters are introduced.

These other projects also make a deliberate effort to link their classroom activities with family or group practical action. An example from Ethiopia may serve to illustrate how this linkage is established in a specific setting. The following extracts from a World Education field trip report, describes a learning group carrying over into daily life, nutrition concepts learned in class.

ETHIOPIAN EXAMPLE	COMMENTS
One night in late spring, the class was discussing the advantages of eating vegetables . . . On the lesson card are pictures of cabbages, carrots and potatoes and the Amharic phrase, "Eating vegetables is healthful."	*The topic of discussion is specific and focused, as in Thailand. Individual lesson cards are used as in Thailand, but with background blacked out.*

These same photographs have been blown up into larger cut-out pictures and displayed on the table at the front of the room.

In Thailand the teacher uses a large poster size card, not cutouts, to complement the individual lesson cards.

The group leaders begin by asking the class members to practice writing the Amharic words for these vegetables.

This sequence, of putting literacy first, is different from that followed in Thailand where literacy exercises follow group discussion.

Then a long discussion of the benefits of eating vegetables follows.

Large group discussion, in Thailand, is usually followed by breaking into smaller groups.

After the dialogue the leaders ask the participants to come forward and select from among the pictured vegetables they consider to be most nutritious and which they might like to include as part of their daily diet. Then, each participant explains to the rest of the group the reasons for the choice.

This is an innovation. It gives each participant a turn at presenting his or her particular viewpoint.

Taking part in this class session is the local agricultural extension worker, placed in Lumamie on a permanent basis by the Ministry of Agriculture. As part of the teaching team this evening, the extension worker leads a discussion of some ways participants could plant, grow, and harvest vegetables in their own small gardens.

Securing the collaboration of other specialists is often very difficult. In Ethiopia an interagency board assures that specialist help is available to the teacher.

Some class members do not have any land of their own. The participants decide to collaborate in growing vegetables in a cooperative garden.

Through this kind of approach, what is learned in discussion is integrated with the participants' experience beyond the classroom.

With the cooperation of the extension worker, they subsequently did dig and plant a large garden. The produce harvested was considerable, and much of it was used by the class participants for their own families. What they could not use at home they carried to market in a neigh-

boring town and sold. With the proceeds, they will buy more seed and fertilizer for the next garden.

Practical application is very much a part of the BRAC program and of PRRM's Functional Education for Family Life Planning project in the Philippines.

Projects in Bangladesh (BRAC) and in Ghana show another innovative aspect of this type of educational experience. Both programs introduce a "feeling" component into the problem-solving process. This is done by including questions about the participants' emotional reactions into every lesson (at the risk of some monotony) and by extending the sensitization process beyond the classroom by introducing games based on or adapted to local culture. The first three sessions in the Bangladesh curriculum do not include any literacy exercises at all.

The format of a lesson in Bangladesh may be as follows:

1. Large group discussion of stimulus (picture)
2. Small group discussion
3. Reports from small groups
4. Literacy work

The same general format is followed in the Ghana program. To move discussion along, the Teacher's Manual suggests specific questions which can be asked. These questions are grouped in three categories or "levels."

In a lesson on voting, for example, the analysis of a picture-stimulus showing a voting scene would be guided by the following type of questioning sequence:

Level 1 Questions that elicit simple descriptions and observations, that deal with obvious facts:

What do you see here?
What is happening?

Level 2 Questions that call for analysis, that try to uncover cause-effect relationships:

Why are the people voting?
What power do the voters have?

Level 3 Questions that deal with attitudes, feelings, and values:
Put yourself in this picture:
How do you feel? Do you feel important or unimportant? Why? How important is voting?[5]

Once this format has been established, lesson plans for other units are modelled on it and the accompanying sections of the Teacher's Manual quickly drawn up. The need to standardize the format so as to reduce personal bias and to establish new thinking habits through repetition will be evident from comparing the following three lesson plans. The Levels 1, 2, and 3 under *Questions* refer to three types of questions referred to above: observation, analysis, and emotional identification. The following samples of standardized lesson format have been taken from the BRAC teacher's manual.

Topic: *Housing*

Stimulus: *Picture*

I. Questions:
Level 1. What do you see here?
Level 2. What has caused that (problem)?
Level 3. What do you think the people living in this house feel? How would you feel if you happened to be in this house?

II. Small group discussion. *20-45 minutes.*
Discussion focus: Why is the house broken down? What can we do to prevent this situation?

III. Reports. *10-20 minutes.*

IV. Literacy. *15-25 minutes.*

Topic: *Polluted water*

Stimulus: *Picture*

I. Questions:
Level 1. What do you see . . . ? What are the people doing? What are the animals doing?
Level 2. Why are the people and the animals using the same water?
Level 3. How do the people feel using the same water with the animals? How would you feel if you were using the same water?

II. Small group discussion. *20-45 minutes.*

Discussion focus: How does water get polluted? How would you prevent it?

III. Reports. *10-20 minutes.*

IV. Literacy. *15-25 minutes.*

This set pattern of class activity is opened up through the introduction of such games as Bingo, Number Blocks, and Numbers Rummy, to familiarize the learners with number symbols, or Syllable Blocks and Concentration to reinforce literacy skills.[6]

Sensitivity exercises, very much a part of the teacher training process in Bangladesh, are also being gradually introduced at the village level, to initiate group discussion or to round off a learning sequence.

A brief narrative account of what took place is kept, as an aid in assessing how effective and appropriate the exercise is in a particular local context. An example is the Blindfold Game which has been used in several communities as an initial stimulus to get women to participate in the getting acquainted process that will provide the best atmosphere in which to discuss their problems.

Village women gather in an open space near their houses and after an exchange of greetings, the motivator suggests that they play the Blindfold Game. Amid reactions of shyness and excitement, a volunteer is found and blindfolded. She is led, by another volunteer, around the circle. The motivator asks how she feels about being blindfolded. Her response to being blindfolded–her feeling of helplessness, her need for help, her awkwardness in an unfamiliar situation–is then discussed in a broader context of life problems. Reactions to this game may be quite frank; indicating self-awareness and assertiveness on the part of the learners. In one village, for example, a woman in the group objected to it strongly, calling it a silly game and a poor analogy because "blind people are blind for life."

In another village the women decided to blindfold the motivator and asked "How do *you* feel?" Given the opportunity and a climate of mutual trust, learners often become, in effect, the teachers.[7]

While simulation games and role playing and other activities are

increasingly used to loosen up the group and to arouse critical consciousness, the core of the curriculum in each case remains primarily focused on specific social and economic issues. The lessons deal with learning the most effective, rational and, systematic way of overcoming deficiencies and satisfying needs. In this way, both the need for better ways to cope with life's daily problems and the need for greater self esteem are met.

The training of teachers follows a similar two-pronged approach. It includes some exercises aimed primarily at sensitizing the participants and other exercises aimed at systematic analysis and skill development. The sensitizing exercises help teachers become aware of their role as catalysts and discussion guides. At the end of the exercise they discuss the experience, and in particular how they felt during the experience and why they felt that way. The analytic and skill development exercises, on the other hand, may end up with questions such as the following:

What did this exercise accomplish? (output)
How did we arrive at a solution to the problem? (cognitive problem solving)
Who gave the solution? (input)
What did we learn? (output)
How can this be applied to a learning situation among village adults? (transfer of learning)

A real difficulty, both at the village level and in teacher training, lies in attempting to reconcile the sensitivity component with the programmed instruction component. This brings us back to some of the questions raised at the beginning of this section. How does one reconcile the programming of instruction with the principle of not imposing answers on the villagers? What skills does a teacher need to use a structured curriculum without manipulating? A Ghanaian teacher asks, for instance: "How do you avoid telling the learners when you really do have the answer?" The answer given in this case by the consultant to the project is that the teacher must allow the learners to go through the same analytic process that he went through in arriving at his answer.[8] To hand out pat solutions is to "domesticate," in Freire's definition of the

word. The only way out is to give the participants the experience of being joint inquirers.

In addition, it is not enough to just say that learners' ideas are important or to give them a few exercises that will demonstrate the value of their own ideas. They need repeated experiences of actually being the experts in order to dispel the notion that outside 'experts' know more than they do.

Projective Approaches

There are times when photographs or line drawings directly focused on familiar problems are not adequate to probe the full dimensions of the problems as perceived and felt by adult learners. The need for a different stimulus arises particularly where learners do not readily see or accept that their problem may be aggravated by factors within themselves, inherent in their own social, cultural, and psychological make-up. Yet the presence of many such factors may become apparent to the learner if handled in an indirect way, such as through discussion of the behavior of characters in a short story, drama (radio, TV, comic strip), involved in a critical incident. This projective approach therefore helps to open new windows through which the problem can be seen in clearer light.

The story, as a projective device, has a built-in advantage in that it can depict growth, movement, and interaction beyond a fixed point of time. It permits the audience to observe and interpret subtleties of the behavior and the spoken or inferred motives of the characters. If the story is open-ended—that is, if the problems remain unresolved—it particularly invites personal analysis of the process by which conflict builds up or might be resolved. It further encourages reassessment of the learner's own values and creates awareness of the practical consequences of such values and attitudes.

All of these dimensions may provoke the listener to comment from his own experience and in so doing to give away clues to his own feelings and values. Although the learner may be aware that by agreeing or disagreeing with a character in the story he is revealing his own feelings to some extent, he is likely to feel less vulnerable in a group discussion of a story than when directly

expressing a personal point of view about his own problems. The story provides him a degree of psychological safety. At least, there, he is simply interpreting the actions and motives of fictional characters and is free to change his mind when new evidence is presented by some other member of the group.

The Turkish program. The projective approach was used extensively in a pilot project undertaken by the Ministry of Education in Turkey from 1971 through 1973 with the assistance of a resident advisor from World Education. Turkey developed eight different functional education curricula around economic and family life concepts, all of which were developed through the use of open-ended stories as the basic strategy. Usually based on a local anecdote or situation, each of these stories depicts a poignant problem left unresolved so that learners have to give their own interpretation of the outcome. Each story covers a short period of time, focuses on one major point and presents enough controversy to stimulate discussion. Each one contains characters that are believably human—not all good or all bad, so that there can be reasons for siding with any one of the characters.

The Turkey experiment represents a middle ground between two quite different styles of teaching: the structured and systematic problem-solving approach of Thailand and the flexible open-ended self-actualizing approach tested in the Philippines. It is of interest, however, that the Turkey project itself borrowed several ideas on format from the Thai curriculum, adapting them to serve an essentially different purpose:

1. Curriculum planners broke down the subject matter of the curriculum into small learning units, each one of which conveys a single problem or concept. In Turkey the problem or concept is presented indirectly in a dramatic episode.
2. An illustration provides a stimulus and a key word relates to it. In Turkey, the illustrations are line drawings (Appendix B). Most of the Thai illustrations are photographs. In Turkey the caption gradually changes from key word to key phrases and then to sentences, as the learner acquires literacy competence.
3. A loose-leaf format allows the learner to make up his own primer or text book by adding one page or unit at a time.

At this point the similarity seems to end. What then is the essential difference?

The Thai materials, as discussed in the previous section, engage the learner, directly and straightforwardly, in the analysis and assessment of a specific problem, usually one that is observable in the external environment. The stimulus provided for this purpose is easily recognizable by the learners as being part of their daily life. For example, the stimulus may be a picture of a child's feeding bottle covered by flies, or a man spraying his crop, or a woman marketing vegetables. There is no attempt to camouflage the problem: confrontation is open and direct. Naturally, in the process of group discussion to arrive at a cognitive grasp of the subject matter, the learner's feelings about the specific content discussed are likely to surface but the protective shield of discussing a fictional character's dilemma, rather than one's own, is absent.

The main emphasis in the Thai curriculum is not on exploring the "feeling level" as such. By contrast, discussing feelings, attitudes, beliefs, and values are of critical and priority importance in the Turkey curriculum. They provide the frame of reference for understanding environmental problems in their full depth. The technical problem is, in fact, deliberately interwoven into a human situation which is wide open to many different interpretations. It is up to the learners to get to the essence of the technical problem through their own efforts, sorting it out from the whole complex of social phenomena which give the episode its dramatic quality.

The principle stimulus for each day's group discussion in Turkey is a story that presents characters whose needs are very similar to those of the average village family and community. Detailed line drawings illustrate the stories. Each day the teacher reads aloud a new episode, written to create a tense or risk situation where divergent viewpoints clash and may be only partially resolved. Some of the stories are open-ended and leave the readers to decide their outcome. Villagers can readily empathize with the characters in the series of vignettes, to the point of frequently taking sides with opposing characters when there is a conflict of beliefs or values.

It is easy to see that in this respect alone, if in no other, the

Thai and Turkey models are poles apart. One stresses simplicity, the other complexity. For the Thai curriculum, programming involves singling out a problem and reducing it to its essential. In Turkey simple human needs are shown, subject to the wide range of interpretations, deductions and conclusions prompted by each learner's own life experience.

The stories used for learners in tobacco growing areas are in the form of letters to an absent son, Murat, who has gone to do his military service. The letters cover a variety of subjects: among them, tobacco crop, the family's health, means of limiting the size of families. Class members soon become well acquainted with all the family, friends and neighbors, and their problems. In one story, Murat's father cautions him to guard his health and describes everyone's concern over a village boy's illness.

Suggested questions, and their answers, are given after the story and provide an opportunity for discussion and shared thought as well as a framework for presenting medically correct information about typhoid fever. Everyone in a classroom discussion would have some experience with this type of situation, some opinions on what should be–or should have been–done. Everyone has something to contribute.

The Turkey curriculum would seem to illustrate, at least in a preliminary way, yet another principle: that when a problem is brought out of its purely technical context and placed in the center of a social arena, the discussion is likely to add social reinforcement to any solution which the group considers technically feasible. Several practical action programs were in fact reported as an outcome of the Turkey pilot experience, as cooperative endeavors of members of the village learning groups. Members of several classes began to work together to establish cooperatives. Another class tried out new methods of sowing and transplanting tobacco, still another experimented with early production of vegetables. Participants began to look for and try out new ways to improve their lives.

The Apperception-Interaction Method (AIM), U.S.A. The same type of projective approach to learning forms the basis for AIM,

an approach developed by World Education for use in basic adult education programs in the United States.

AIM, an acronym for the Apperception-Interaction Method, begins by identifying problem themes in the daily lives of the learners. Learning materials based on these themes are then prepared in the form of looseleaf four-page folders with a provocative photograph on the front and an open-ended problem drama or narrative on the inside. In using each unit, learners first relate their own feelings and experiences to the photograph ("apperception"). They then, in group discussion, explore together a particular coping problem projected in the narrative ("interaction"). Teachers, acting as discussion leaders, help learners explore the options open to the characters. Depending on the direction of such discussions, the teachers may introduce new material to help learners become more aware of community resources related to specific life problems, or they may use the content of the discussion unit as the basis for specific language and literacy exercises. (See Appendix B)

In terms of problem solving, the AIM experience has been the same as that of the Turkey project described earlier. That is, problems are discussed out of their purely technical context and in a group situation in which participants can encourage each other to consider possible solutions. AIM discussions have sometimes led to significant initiatives on the part of learners outside the classroom, in seeking work, for example, or applying for public assistance. One AIM story explores feelings about "women's work." Others explore such problems as employment, housing or interpersonal relationships. A didactic emphasis is absent. Learners draw their own conclusions on the basis of their own experience.

The AIM and the Turkey materials, like the self-actualizing materials described in the next section, encourage learners to think for themselves. Since the story itself contains multiple stimuli (that is, varied characters, motives, and situations as well as a visual stimulus), and since the ending is undefined, individual members of the learning group have the opportunity to create their own versions of the ending and to respond imaginatively to the contents of the story. Teachers in fact often find that different members of their classes pick out very different elements of the story as the

main theme they wish to discuss.

One American teacher has described the way a classroom discussion took an unexpected turn. She was using a story dealing with a dejected young husband who comes home to tell his wife he has lost his job:

> *In discussing the story, someone brought up the idea of child abuse, since adults often vent their frustrations on their children.*
>
> *Introduction of this topic brought forth an actual torrent from a hitherto reserved and bashful student, a boy of seventeen, the only male in the group. It seems there is repeated abuse of an infant in his family circle, which bothers him greatly, but he lacked the knowledge and the courage to do anything about it.*
>
> *Encouraged, advised, even goaded by his classmates, he gathered enough strength to report what he knew to the authorities, with the result that the infant was taken away from his parents. In addition, the mother, who is the guilty party, has consented to go for counseling . . . The story isn't over, of course, but the baby is safe, for the present at least, and what taking action did for that young man was marvelous.*

Whether this type of flexibility in the use of projective materials should be considered an asset or a shortcoming of the materials depends entirely on the central purpose for which the materials are designed and the interpretation which teachers give to their purpose.

Flexibility and the use of topics open to interpretation by the learners create difficulties for teachers who are concerned with maintaining a steady and systematic pace of progress along a specific subject matter track; by contrast, it is welcomed by teachers who are willing to give learners all the time they need to understand themselves and their social milieu through examining human behavior in dramatic change situations. To the extent that the projective curriculum design and the training of teachers emphasizes the latter, it moves toward the concept of self-actualizing education discussed in the next section.

Implications for training. Training of teachers for the use of projective materials must again emphasize a nonauthoritarian, facilitating role. Discussion techniques are particularly important

here. One interesting innovation developed by AIM has been to involve teachers directly as materials developers. The AIM training process, usually a six-workshop series, begins by asking teachers themselves to carry out projective needs assessment interviews with their students. Data from these interviews is then used as the basis for AIM stories that teachers write for their own classes and the classes of their colleagues. Training also includes practice in the use of these materials in group discussion settings. Evaluation results suggest that having teachers actually prepare the materials increases empathy with student needs and problems and makes teachers more receptive to the idea of learners' involvement in group discussions concerning these life problems.

Self-Actualizing Approaches.

Self-actualizing education is hard to define. The term, as used by Maslow, describes full humanness. Like growth, it is best experienced. I shall, however, try to clarify the concept by referring to the processes set in motion at two staff workshops, in two vastly different contexts. One was under the direction of Antonio Santiago and Connie Madayag of the Philippines Rural Reconstruction Movement (PRRM) in Nueva Ecija, Philippines;[9] the other took place at Henry Street Settlement House in New York. Both were concerned with the training and development of innovative learning materials and learning approaches.

Having served as principal adviser to both projects I admit to a certain bias—or call it faith—in the method, and an expectation of positive results. This may well color the judgment of actual outcomes. To guard against such bias, however, and to facilitate analysis, large portions of both workshops were recorded on tape and transcribed.

The Philippines field test included demonstration sessions at the village level and involved the participants in the evaluation of each other's learning designs. They applied a set of objective criteria and took turns functioning as teachers and evaluators.

The Henry Street workshop was organized differently. It was an in-service training program for social workers, and used peer teaching

as the essential method. One test of its effectiveness was thus the degree to which basic educational issues emerged spontaneously through group discussion with the consultant playing only a minimal role. The social workers who took part practiced participatory techniques and explored together their reactions to this new way of working with adults. Their comments reveal their feelings about the new methods they were learning. Brief quotations excerpted from the transcripts of the training sessions are interspersed throughout this section. In themselves they speak for the self-actualizing process: they are evidence of participants' sensitive involvement in the analysis of issues, drawing from their own background of experience and freely using their own style of expression. I believe this kind of open and free-flowing process is more likely to take place when the design of the learning session encourages creative self-expression, strengthens peer bonds, and enables participants to carry major responsibility for the outcome of their deliberations than when learners mainly respond to stimuli presented in a structured, set way by an outside consultant in the role of teacher and mentor.

Four characteristics of self-actualizing education. Four of the key characteristics of self-actualizing education will illustrate some of the purposes and thinking that underly the process:

1. *Learner-centered and learner-generated process.* As in the client-centered therapy developed by Carl Rogers, self-actualizing education begins with a strong belief in the individual's capacity to re-order his own life. The underlying assumption is that opportunities for self-discovery (by learners experiencing new, expressive roles) can develop and release this capacity. The primary function of the facilitator is in fact to create such opportunities which engage the learner as a whole person and encourage his active, expressive, autonomous contribution. This requires that facilitators genuinely accept nondirective roles for themselves. At the same time they need to be able to draw out and enhance the leadership capacity of others. This skill may depend on such elementary capacities as the ability to

listen, to refrain from dominating the group's thinking or from supplying the answers, and to detect and support the learner's positive initiatives however tenative they may be.

> "... many of these women ... I deal with feel hopeless and ... I think this interferes with their learning process, if they underestimate themselves ... so I see my function, not only as teaching office training, but in helping these people by stimulating their motivation so that even after they've finished in the program ... it gives them a clearer perception and objective ... Even afterwards they can pick themselves up and maybe direct themselves."

2. *Peer learning.* The self-actualizing process begins with the establishment of a trusting relationship between the facilitator and the group. Trust is an essential prerequisite for promoting the growth process. Without it, strong participatory currents cannot be released within groups, particularly those that are defensive of suspicious in their dealings with outsiders. The facilitator must view the participants as his peers and maintain this climate of mutual acceptance throughout the learning experience; he must be genuine in his own relationships and consistent in his efforts to help learners play the dominant role.

> "An experience that I think all of us have had is if we are sitting in a group like this, we'll do all the speaking out that's necessary. But if Mr. B. suddenly comes into the room, some of us suddenly get tongue-tied and I'm not talking about community now, I'm talking about staff."

3. *Facilitating a positive self-concept.* It is assumed in self-actualizing education that a key factor influencing the choice

of a course of action is self-concept, the way individuals perceive themselves, and the degree to which they can envision themselves as effecting change. Self-esteem and willingness to take calculated risks go together. Often, when weighing the consequences of a decision, the risk of social disapproval can act as a more powerful deterrant than the economic risk involved. The timid individual, or one whose self-esteem has been undermined by repeated failures, may tend not to opt for new ideas out of a fear of appearing too bold or a feeling of powerlessness.

David McClelland points out that there is a powerful and pervasive network of associations which define the self; associations from this self-system can act consistently to block thoughts of achievement. Frequently, in working with adults, educators tend to emphasize the solution of a problem in the external environment when the real causal factor, which may relate to many different situations, lies within.

Maslow maintains that a growth-motivated person solves his own problems and conflicts by turning inward, by self-searching, rather than by seeking outside direction.

Self-actualizing education shares the belief that change is most effective when it begins with the inner person, releasing capacities and fostering the more positive, more confident use of self. It, therefore, provides stimuli that encourage learner initiatives. Each time learners feel bold enough to act constructively on their own initiative and not simply in response to questions or suggestions by the teacher, they are gaining a measure of psychological freedom. This in turn is invaluable to the growth of individuals and to the overall community and national development effort. Self-actualizing education provides opportunities by which learners experience new and more positive estimation of themselves and are more willing to express views that diverge from those of their peers.

"There are some problems that deal with the system, there are some problems that deal with knowledge, and there are some problems that deal with oneself and one's attitude."

4. *Creative imagination.* Self-actualizing education emphasizes creativity. By this I mean the full use of imagination, going beyond the cold and rational analysis of facts. In many programs designed to help learners with poor motivation, where problem-solving is emphasized, the stress tends to be on the cognitive understanding of a problem and on the use of scientific methods to arrive at its causes and solutions. This is already a big step away from the traditional style of coping with or adjusting problems. But it is not nearly enough. Major advances throughout history have been made by beginning with the free use of imagination to visualize creative solutions not conceivable on a purely judicious, rational, pragmatic basis.[10]

   The need to encourage creativity in relation to development effort in rural areas is great. Traditional rural societies tend to reward conformity rather than innovation. They offer few incentives to creativity. There is safety in following the traditional path even though it may not lead to satisfactory solutions. Yet the pace of development will remain restricted if the full creative and visualizing power of rural communities is not turned on. My own personal belief is that to the extent that we imagine a better quality of life, regardless of how it is defined, to the degree to which we conceive of ourselves as achieving it, to that extent our efforts become more effective. It is not the outsiders as much as the insiders whose imagination holds the key to a major breakthrough in rural development. Yet few rural adult education programs as yet make deliberate efforts to develop and make use of the learner's imaginative capacities.

Self-actualizing education shares with synectics the view that man's full potential will not become fully effective unless he can break away from sterile self-perpetuating patterns of thinking. It therefore utilizes methods and materials which, though very different from those used by synectics, also enable individuals and groups to discover new ways of looking at life solutions. The aids used may, themselves, be nothing more than the raw materials from which learners can recreate and interpret their own perceptions

of reality or their aspirations for the future. Each learner may manipulate them to express a personal and perhaps unique viewpoint. Thus with a minimal stimulus, a rich flow of communication from the learners' end becomes available as the initial subject matter of study. The aim of this strategy is to transform learners from passive recipients of messages from the outside to active communicators and decision-makers. And the first decision they make is about what they want to learn.

> "I can't see anything really to relate to in that picture."
>
> "Would you like to try? . . . Come and choose two or three others."
>
> "This is the beginning, right? This is a family, the mother and father and two children. The father is gone away to war, and the mother is really worried, she's worried . . . she's worried that maybe he won't come back, and she's looking at the children . . . What's going to happen to them if my husband doesn't come back? And that father's also looking back, wondering or admiring his children, really just looking at them, because he's going away to war. And here he is at war; he feels as though he's really scared. I guess this could be the father. He's really scared, and he sees a younger guy, and maybe he's thinking, this could be my son, and here I am in a war fighting with him.
> That's all I got, all I see in it."
>
> "Do you want to comment, do you want to tell us anything more about the use of those pictures, now that you have used them?"
>
> "I just felt my imagination going."
>
> "Is that a good or bad thing?"

Implications for training. From the curriculum veiwpoint, the facilitator's skill lies in using these life experiences of the learners as a resource. A skillful facilitator will begin where the learners are and help them move to where they want to be, and do this without reverting to the dominant role of the traditional teacher. If the training of facilitators incorporates direct experiences of the same kind they are expected to generate in working with adults, it increases the chances that they will be convinced of the value of creativity and be committed to fostering it.

Accordingly in the Philippines example, the entire workshop was designed and conducted on a "taking over" principle. By this is meant that each level of staff traditionally viewed as representing authority and expertise, divested themselves of their authority role and encouraged the learners assigned to them to "take over". Those in a learning role thus assumed responsibility for their own learning with a minimum of outside structure. But there is a difference here from the posture taken by some educators who, reacting to the authoritarian role of the traditional teacher, maintain that the learner is the only expert. In some respects this is true and in others not; the educator too, though playing only a facilitator role, *has to be an expert at facilitating.* The learner provides content, experience, awareness, critical analysis and feeling from his own life experience; the facilitator brings to the learning situation professional expertise in creating the atmosphere of mutual trust and sharing that can foster a self-actualizing experience.

Consistent with this principle, initial planning for the Philippines Workshop was done through an intensive two-day preplanning session with the director of PRRM, Tony Santiago, and the associate director, Connie Madayag. Decisions were not theoretical. They were reached only after each activity had been personally tested out by each member of the preplanning team. This meant actually going through and experiencing each exercise or activity, since no other way would have been adequate to get the feel of the activity from the inside. In the course of this 'tryout', new ideas emerged for adapting or substituting activities. Preplanning thus became a creative encounter, and proved an excellent means of enabling PRRM leadership to identify with the self-actualizing ideology

and to feel committed to it through their own personal and creative involvement.

> "... and I think ... that is going to make me feel a little more comfortable with the fact that I don't know it all. I'm a professional, but I don't know it all, and there's a lot for me to learn and also, in terms of the people I'm helping, they're not so helpless as they may think they are. Although I may have identified certain things about them as being helpless, as I begin to make mistakes, I think this is where their positiveness and their strength is going to come in to kind of guide me, and at that point, they're just going to be in a different role altogether, in a different ball game."

The same procedure was adopted by the PRRM director and associate director in introducing the workshop participants to innovative educational methods and materials. Apart from the inaugural session, no time whatsoever was spent on lectures or other prepared technical papers, published case studies, or other theoretical expositions. Participants were immediately involved in sensitizing and comparing notes in plenary meetings; participants themselves played a key role in developing strategies for work at the barrio level. They were thus more convinced, through personal experience, than they possibly could have been through hearsay, that the "taking over" principle really works.

The initial expectations of the village groups were that they would be lectured to, admonished, and taught. The learning experiences that the trainees set in motion at the village level placed the villagers in a totally different role. They became active and expressive decision makers. This change could have been traumatic and confusing were it not for the skillful design and use of stimulus materials to build confidence, self-esteem, and expressive behavior among learners. Also crucial to the process was the

use of pre-testing and feedback measures alongside of each learning experience.

Since a detailed report on the project is available from World Education,[11] I will limit myself here to summarizing the main features of training and briefly describing the experience of implementing some of the sensitizing and monitoring exercises. Further details of the exercises are given in the Appendix.

I cannot overemphasize the importance of internal consistency in the application of self-actualizing principles at all levels of the training and educational process. By internal consistency, in this context, I mean that the training of trainers, or for that matter, the orientation of curriculum planners, must conform to the same principles of participation that are to be applied at the village level.

The standard objection to this strategy is that it does not take into account the level of sophistication of the group; surely, the reasoning goes, those who have a higher academic background can learn through more abstract theoretical presentations. The traditional practice in training trainers and field staff is to organize lectures on the psychology of rural adults and on principles of adult education. Then the trainees are usually given brief opportunities for what is called "practice teaching" or "practicum". During practicum on others, the degree to which trainees have understood theoretical concepts is put to the test.

Observations of field level training in varied settings and contexts lead us to believe that the apparent logic of this position is open to question. It is like attempting to train swimming instructors by lecturing to them on the psychology of nonswimmers, and then supervising their efforts to teach swimming from outside the pool. My own belief is that teachers or facilitators need direct experience as learners in gaining an understanding of the educational processes which they are expected to generate among other learners. But perhaps this is not an either/or matter. Some "theory" and "practice of theory on others" has its place at different levels. The real question is when, and to what degree. For the self-actualizing approach theoretical lectures per se and as a starting point are least useful. They can be used later as a means of reinforcing what has already been discovered by trainees through direct experiencing

but they defeat the basic purpose if used at the outset as a means of imposing a predetermined, prescriptive body of knowledge.

The training process in the Philippines comprised twelve main steps over a six month period. It will be noted that every step in this sequence is essentially practical, with theory coming in as an outcome of practical testing rather than as its antecedent.

1. Baseline survey of target barrios or villages.
2. Preplanning session described above.
3. Experience-based exercises and introduction of workshop participants to new types of participatory learning materials.
4. Barrio familiarization visit by subgroups. This helped to supplement, confirm or correct data about the barrios previously obtained by a research team through a formal baseline study.
5. Subgroup level planning of innovative approaches to the education of rural women in their barrios.
6. Pretesting of methods and materials in neighboring barrios.
7. Conducting of learning experiences in the target barrios.
8. Use of monitoring and feedback systems with each learning experience.
9. Plenary sessions to compare findings and share ideas.
10. Audio-visual documentation of workshop experience.
11. Continuous field testing of learning experience.
12. Evaluation workshop making recommendations for follow-up activity.

The "take-over" points in this sequence are Steps 2, 3, and 7. Since Step 3 is the beginning of the training of trainers, (a process which does not end here but continues as a substratum, supporting steps 4 through 9), it may be useful here to give a few examples of the kinds of training exercises included in Step 3.

The exercises can be grouped into two main types, process sensitizing and planning and assessment:

A. Process sensitizing experiences
   1. Self-awareness
   2. Visualization related to aspiration levels
   3. Human relations in problem-solving

4. Awareness of attitudes towards rural adults
5. Sensitivity to flow of communication within learning situations
6. Experiencing innovative methods and materials which involve and enhance the learner

B. Planning and assessment exercises
   1. Flow-chart of curriculum activities (Pert Chart)
   2. Activity analysis (Charting of teacher/learner roles)
   3. Relevance assessment (Use of pre-planning checklist)
   4. Group interaction analysis (Use of behavioral checklist)

Except for the Broken Squares game[12] used for human relations in problem solving, exercises and tools used in the workshop are original and some were created on the spot to serve the specific needs of the group. In describing some of these activities, therefore, I wish once again to stress that these are not given as models but only as examples of simple tools that seem to work.

It is important to note that there is a progression in each of these two sets of activities. In Group A, the progression is from awareness of self to awareness of learner and from there to awareness of the teaching/learning process. The movement is thus from the inside to the outside and from the intangible or subjective to the tangible and objective. Many "group dynamics" training activities, though highly enjoyable, may confuse the learners simply because they are unable to see the connection between the group experience and their real-life situation. I believe it is extremely important to design the sequence of exercises in such a way that the connection between the two becomes clear to the trainees themselves as they go through a series of experiences.

In Group B the progression is from general or overall curriculum planning to the planning of specific learning experiences using self-actualizing criteria; it implies a progression from assessment of teacher's sensitivity to learners in their community context, to sensitivity to them as individuals in a group context.

The planning and sequencing of exercises with sensitivity to the purpose for which they are designed becomes a matter of

prime importance. A small slip in timing or sequence can neutralize the entire value of an exercise. For example, if an expectations exercise is to be used—"What I expect to get from this workshop"—it loses its value if given after the participants have been briefed about workshop objectives and procedures, since they will tend to parrot what they have learned from the briefing. If given immediately after registration, even before individuals have become acquainted with each other, the expectation exercise can capture the unprejudiced views of individual participants. Their expectations as expressed at the beginning of the workshop can then be compared with a corresponding test at the end of the workshop. Used in this sequence it should be helpful in identifying and assessing changes in perceptions of learner/teacher roles. Out of sequence, the exercise is of little value.

Another technique that becomes particularly important in self-actualizing education is the posing of questions. For the teachers to be able to involve the learners fully it is important for them to understand which types of questions are most likely to promote independent thinking.

Usually teachers ask memory-types of questions. Several U.S.A. studies show that 90 percent of teachers' questions are memory-type. Memory questions are not to be ruled out but they should be low in priority because they tap only a limited aspect of our intelligence. In addition, memory questions tend to have only one right answer each. The teacher knows the one right answer and so memory questions reinforce the position of the teacher as the dispenser of knowledge (for the learner) and makes the learner's position more subservient.

If we want to build independent learners, confident in their ability to think for themselves, teachers must become skillful at other types of questioning which stimulate the problem-solver to consider different answers each of which may have a partial clue to the solution. Questioning strategy must therefore aim to provoke a large variety of responses around which discussion can take place.

Choice of materials in self-actualizing education. Although materials cannot do everything in education, their role is often crucial

in getting a process started. Since the aim of self-actualizing education is to encourage learners to take the dominant role and to discover themselves as creative, thinking, capable people, the materials used must be able to do just that—to foster learner initiative, encourage creative self-expression, challenge the mind, and lead to practical action. Of these, the first two concerns—learner initiative and creativity—set the self-actualizing materials somewhat apart from those of some of the other nonformal education models.Two examples may help to clarify this:

One of the materials used in the Philippines workshop was called "Serialized Posters." It consisted of a set of pictures, usually four, which could be placed in different sequences with the result that each person who arranged them in the sequence of his or her choice could tell a somewhat different story. In a way the serialized posters were the most limiting materials we used at the workshop because there were only a limited number of combinations one can make with four pictures and the content of each picture already conditions to a large extent the interpretation that the learner can give.

"... certainly materials can't do everything. Materials can't take the place of the process."

Despite this limitation, the serialized posters proved to be a useful first step in getting village members to speak up, in convincing them that their ideas were valued and that different interpretations were welcomed so that all group members would express themselves without trying to guess at a single "right" answer.

As can be seen from the pictures, the women of the barrios became involved in the workshop, took pride in relating their own versions of the serialized posters. Some preferred to speak from the safety of their own places within the circle while others went up to the flannel board and spoke from there.

In training the facilitator to use serialized posters, one great difficulty was the tendency to keep a simple story in mind (the one originally conceived by the facilitator and given as a model to the artist) and to hope that the learners would somehow

arrive at this particular interpretation, at which point the learning experience could move to another phase. Participants were hesitant to accept the idea that there should be no "right" answers in interpreting the serialized poster except what learners themselves consider to be the best interpretation, even when it is radically different from the one which the facilitator originally had in mind. To help trainees gain this understanding for themselves they tested the serialized poster idea in their own subgroups and general sessions. Their own direct experience demonstrated very clearly the greater enjoyment that can result when the responses are varied (some of them with quite unexpected endings) and when there is open acceptance of individual interpretations.

A somewhat different, and much more open, participatory process can be initiated through the use of *flexiflans*, light cardboard figures with movable joints.[13]

The advantages of the flexiflan over the serialized poster are many but the most important one is that it leaves the facilitator no choice but to "let go" and to trust the learner to take over unaided. While as author of a poster series the facilitator may continue to hold a faint version of the original model in his mind, the flexiflans present no such problems. The flexiflan figures are simple "props" which the learners can use in any way they wish to come up with any experience, incident, idea, story problem or aspiration they wish to share with the group.

The important thing to watch out for, in using these materials, is to be sure that we are truly giving the learners options from which they can respond creatively and not just making them believe that they are doing so. If the facilitator does not sincerely and confidently "let go" of the role of authority, if he already has in mind responses that he expects learners to match, then he will not be able to involve the learner fully in a creative and expressive process.

A third type of discussion material that has proved very effective is the use of open-ended "problem-drama" stories, or critical incidents based on the learners' own experiences. Usually based on a local anecdote or situation, each of these stories depicts a poignant problem and leaves it unresolved so that learners can give their own interpretation of the outcome. Each story presents

enough controversy to stimulate discussion. Each one covers a short period of time, focuses on one major point, and contains characters that are believably human so that there can be reasons for siding with any one of the characters.

The fact that learners can recognize at least partially, the incidents and opinions they themselves have shared on previous occasions makes these open-ended stimuli very different from those written by outside specialists on a purely fictional basis. Care must of course be exercised to avoid embarrassing any member of the group whose views or experience has been incorporated into the story. In the Philippines, tape recorders were used, not only to play the story to the group but also to record discussions from which data was selected for the story. While there had been some concern, initially, that rural women might feel constrained by if not suspicious of the use of tape recorders, this difficulty never arose and the taped stories provided a lively means of initiating discussion about practical problems and their solutions.

These three examples of materials should not leave the reader with the impression that the self-actualizing approach is bound to a specific set of materials and techniques which can be applied in a more or less mechanical way. As Carl Rogers said about client-centered therapy, here the concepts we are working with are dynamic and therefore methods and materials cannot be static; we must keep them fluid and open to continuous revision in the light of experience and research findings.[14]

Need for continuous process feedback. Because baseline surveys often turn out to be unreliable and also because it is important for field staff to be involved in first hand study of their communities, process feedback must begin with the first visit by staff to their assigned villages. Similarly when learning experiences have been planned and stimuli designed, they need to be field tested in comparable village situations.

Two other measures can help to assess the quality of the process taking place. First, the facilitators themselves can prepare a two-column report on the type of interventions they made and the kind of role played by learners during an actual learning

experience. The tape recording of the field session helps in the construction of this summary. By writing it up where everyone can see on the chalkboard, a group of facilitators can comment on the roles played by the facilitator and the learners, and discuss ways in which the latter could be more fully involved.

Another device is an observation list which is used during the conduct of the learning experience itself by other facilitators acting as observers. It is a simple way of noting down facts which indicate the degree of interest and participation such as the number of people present at the beginning, middle, and end of the session, the type of interventions by village participants, and verbatim notes indicating any marked changes in attitude and behavior.

3. summing up

Focus of Nonformal Education

Contemporary thought in many fields continues to influence the development of new attitudes toward learning. Practical experience modifies, reinforces, and refines our thinking as nonformal education programs develop with different emphases, and different priorities. I have tried here to describe three alternative approaches to the traditional informational model. Perhaps the simplest way to differentiate between the self-actualizing approach and other approaches is to compare the functions of teachers, learners, and materials or stimuli and by analyzing principal concerns, or "areas of emphasis."

Such a comparison reveals a progression from a subject-centered or didactic model at one end to a learner-centered and expressive model at the other. Arranging them along a continuum as in Figure 2 enables us to understand the differences among them more clearly. It should be borne in mind that as points along the following continuum, these models should be considered as

FIGURE 2: FOUR CURRICULUM MODELS: A CONTINUUM

From Maximum Teacher Role

	Information Model	Problem-Solving Model
Teacher Role	Teacher imparts information and skills usually by lecturing and use of drills.	Teacher presents a picture stimulus and facilitates discussion of a given concept, topic or problem.
Stimulus	Stimulus has as complete information as possible leaving little or nothing for the learner himself to contribute.	Stimulus has only partial information. Student contributes from his own life experience and gathers additional data to better understand the topic or problem.
Learner Role	Learner assimilates information like a sponge, from the teacher's mind and from texts.	Learner analyzes the concepts or problem, evaluates it importance, considers causes and effects, also considers alternative solutions, decides on action, if any, and discovers skills helpful in problem solving.
Emphasis	Emphasis is on mastery of subject matter and on learning by rote.	Emphasis is on learner's use of his own mind for inquiry and problem solving.

To Maximum Learner Role

Projective Model	Expressive/Creative Model "Self-Actualizing"
Teacher presents an open-ended story or picture-story with a fixed sequence of events. The idea of events in the story comes from the curriculum writer.	Teacher presents only the raw material from which stories, incidents, problem situations can be created and narrated by students. Raw materials include pictures in *no fixed sequence* and individual figures (flexiflans) with movable parts.
Stimulus has partial information both on a technical problem and on the attitudes and other social, psychological and economic influences on the problem. Students supply the rest of the information needed, through discussion, interviews, and consultation with specialists.	Stimulus has no information other than it relates to human beings. Students manipulate it to convey any meaning they choose. The group gets more understanding through discussion, consultation, interviews, and through comparing different creative interpretations of the same stimulus.
The students supply the ending. They discuss the behavior and motives of the characters in the story and in so doing they may project their own feelings, values, beliefs, etc.	The student uses this raw material and his own life experiences to create a new story which the group can discuss. The words and sentences spoken by the students become the basis for literacy exercises.
Emphasis is on understanding the problem in an integral way with special attention to the hidden influences on the problem. (Socio-cultural and psychological.)	Emphasis is on developing the learner's confidence, creativity, and communication abilities and on problem solving based on subject matter drawn from student's own lives.

merely abstractions: in reality any one curriculum based on any one of these types could in fact encompass at least some elements of the other types. In practice, the hard lines of differentiation tend to get blurred.

Application of theory to learning situation. Several unresolved issues emerge from any consideration of current learning theories and the field experience that is developed on the basis of those theories or perhaps gives rise to them. Briefly stated, these issues relate to learning strategies, criteria for selecting content, structure of the curriculum and other planning components. These issues revolve around the central focus of the educational planning involved. Is that central focus on the exterior problem, or problems, facing the learner? Or is the planning more concerned with the learner's personal development? Every phase of planning is colored by one or the other of these viewpoints and the two show strong contrasts when juxtaposed, as for example, in the following:

PROBLEM-CENTERED APPROACH	**SELF-ACTUALIZING APPROACH**
Basic curriculum strategy:	
Approaching the learning situation as primarily an intellectual, rational cognitive process.	*Designing learning situations that involve the learner emotionally as well as intellectually so as to touch the learner's deepest value base and self-concept.*
Determining content:	
Identifying the appropriate subject matter for the curriculum through a short-term formal baseline study of local communities and combining it with the priorities of the technical or service agencies.	*Involving the learning group in developing its own curriculum with both local and national priorities in mind, using baseline study as point of reference.*
Designing the learning experience:	
Building each learning unit around a problem in the external environment and conducting the lesson in a manner that will develop practical	*Planning each learning experience in a way that provides learners with opportunities to reassess their feelings about themselves and about*

problem-solving skills.

others, to exercise creativity, and to experience new roles in the course of solving practical problems.

Defining curriculum structure and flow:

Prepackaging the curriculum into learning units with defined sequences, learning aids, and teaching guides; providing an adaptable but highly structured curriculum.

Predetermining only the bare materials needed to encourage and support an active learning role by the group. Sequence is determined by learners' interests and readiness for action.

Developing appropriate learning materials:

Drawing heavily from a wide variety of available materials but relying heavily on standardized printed materials as the main vehicle for stimulating group discussion around a preselected problem.

Utilizing a variety of materials with greater emphasis on those not dependent on literacy skills, such as audio-visual aids, role-playing, critical incidents, simulation games, etc., which arouse consciousness of self in relation to problems.

Teaching literacy:

Using a programmed text from which to teach literacy skills as a relatively precise science.

Using the group's spontaneous communications as the basis for instruction in literacy as an expressive art.

Selecting a locale:

Conducting the learning sessions in a classroom or other specific setting to which learners are expected to report at specified times.

Decentralizing educational opportunities, taking education to where the learners are and at their convenience, and in informal settings, resembling spontaneous community gatherings.

Training the group leader:

Training of teachers or leaders emphasizes learning how to conduct group discussions and to help learners master the programmed text as a reinforcement to problem-solving skills.

Using participatory techniques to train group leaders or village workers to involve people in learning experiences which include group discussion, and other expressive techniques in support of problem solving and personal growth.

Evaluating the learning experience:

Assessing progress primarily on the basis of learning gains and attitudinal change as indicated by objective tests and teachers' observations.	*Assessing personal growth and learning gains through observation and detailed analysis of the process that has taken place in the group: the role played by individuals, the nature of their interventions, relative role of teacher and learners, the basis for decisions, and the technical validity of their plans for future action.*

Focus of training for nonformal education. What kinds of understandings, attitudes, aptitudes and skills do nonformal educators need in order to be able to fulfill program expectations? What adaptations or changes in training design, content, and approaches are needed in order to equip field staff to function effectively? These are important and difficult questions to answer.

We might begin by outlining some of the expected outputs of staff training. Such outputs will, first of all, involve a new kind of understanding of the adult learner. It is essential to understand the learner as a person and to be sensitive to the personal motivations, value perceptions, fears, and inhibitions that influence the learner's capacity to progress. What are the effects on motivation and action of the learners' inner pattern of thinking and feeling about themselves? How do they perceive themselves and what influence does this have on their outlook? How do socio-cultural restraints affect their decision-making and action capabilities? What facilitating and supportive role can peers and local leaders play? The whole influence of such forces as the traditional values, norms, communications systems of the learners' own community must be considered as well. Most of all, the staff of nonformal education projects need the ability to relate to rural adult learners with love, respect, and optimism.[1]

In addition, training for nonformal education must provide a very clear picture of the role such education can play: its basic objectives in terms of personal and all-around development, the rationale of its specific methods and materials, the possibilities it

presents for sound working relationships with technical staff of other agencies to provide additional opportunities for gaining technical knowledge.

Teachers must have adequate technical knowledge in order to get learners started on the solution of specific problems but the special skills demanded by nonformal education have more to do with the creation of an atmosphere that will be most conducive to learning: relaxed, nonthreatening, unhurried, confidence building. Opportunities must be provided for experiences that can promote initiative and self-reliance among the learners and supportive cooperation among them too. Staff members must know how to encourage self-expression and participation by all learners, including the timid and the less vocal ones. They must also be skilled in coping with conflict situations within the learner group and in providing emotional support where needed. As the program progresses, they need to promote efforts on the part of the learners to make use of available assistance or develop new resources. Staff members need to know how to follow up dropouts with sensitivity and without pressure, respecting their right to make their own decisions. Finally, the staff needs to be skilled in following up the progress of the learners who have been in the program long enough to have benefited from it and in keeping records and providing objective feedback for assessment.

Obviously this is a difficult task for any training program to undertake. At the same time, without this special concern for the human factor, nonformal education could not possibly fulfill its developmental objectives.

Summary of Assumptions

Most monographs end with a set of conclusions. I feel that the nonformal education field is so new that conclusions would, at this point, be premature. We can at best restate assumptions, and hope that they can be further refined in practical application.

In looking for similarities and differences in nonformal educa-

tion programs, whether of idealogy or practice, I have become more than ever conscious of the unique opportunities which this field offers us—to be inventive, to experiment, to examine, to learn, to perfect new techniques and refine concepts. The field is still wide open, with no prescriptions and no right-for-all-times answers. In planning new strategies best suited to the needs of particular learners in particular settings, we are as free to draw inspiration from science as from the arts, from business management and social services, from modern practical invention as well as from ancient philosophies. Openness to experimentation characterizes nonformal education at this stage of its development and provides one of its special challenges.

We have been considering here some of the fine lines of differentation among experimental strategies but there are as well some common denominators, some shared assumptions. The ten assumptions listed below are not all equally relevant to all innovative nonformal education projects, nor equally shared by all practitioners in the field. But I believe they would be accepted by most of us, as being consistent with the basic philosophy that underlies our work.

Some Assumptions in Nonformal Education

1. Adults in rural areas are more likely to accept new ideas when they can understand them in the context of their priorities and interrelated with the other important segments of their lives.
2. Effective learning takes place most easily when there is strong motivation to learn. The motive power needs to come from inner convictions and not from mere persuasion or external incentives.
3. The individual's capacity to contribute to development requires that he be able to clarify value positions, discern cause-effect relationships, make considered judgments and take responsibility for action. Learning experiences can be structured specifically to promote these attitudes, abilities and behavior.
4. The learning experience should further enable the learner to

change the way he uses himself (e.g., from passive to active, timid to confident, routine to creative). This is a fundamental growth objective.

5. Conscientization is not something that can be "done" to people—it must spring from within. However, self-concepts can be strengthened and expanded through sensitive preparation of the learning experience and environment.
6. The cultural and social milieu of the rural adult can exercise a powerful and decisive hold on the individual's ability to select options. A curriculum is not likely to achieve developmental goals unless it treats integrally the "set" and the "setting"—the mind-set and the social context.
7. In rural development the people are often their own major resource. At every stage of the educational process, local leaders and learning group peers—who can play an important role in reinforcing and legitimizing change—should be trained and involved in a variety of leadership roles in support of the program. Further, a facilitator drawn from within the community or from a comparable setting will be at least as successful as an outsider, if not more so. The facilitator can help create the climate of trust which is the first step in fostering human development. The selection, training, and use of facilitators is therefore of vital importance.
8. Technical cooperation among a variety of technical agencies and services is essential to the success of nonformal education processes and activities. Such cooperation must be based on common understanding and appreciation of human development principles and of the complementarity of staff roles. Multi-level and joint training sessions are useful devices to achieve these ends.
9. Learning materials can be developed locally with the full creative involvement of learners and can greatly increase the relevance and impact of training programs.
10. Training as well as field operations must be carefully documented, analyzed, and evaluated. The experience must then be ploughed back into program planning and further training so that future programs can benefit from our experience today.

APPENDIX A

Sample Sensitizing Exercises

By Lyra Srinivasan

1. HOW I BEHAVE IN A GROUP – *self-awareness exercise*

Upon joining a new group I generally

a. prefer to sit quietly and listen to others ☐
b. feel quite at ease in participating in discussion ☐
c. find myself ready for some form of leadership role ☐
d. sometimes wish I could take over and structure the discussion ☐
e. feel ill at ease ☐
f. prefer to listen for awhile and then participate in the discussion after I have a feel for the group ☐
g. other (specify)

Comment

In designing this simple exercise my purpose was to sensitize participants to their own behavior in a group setting and eventually to help them relate more empathetically to the villager whose reticence often prevents full participation in a group discussion.

Workshop participants were given the list of options and each was to check off the box which best described his or her own feelings upon joining a new group. The forms were to be handed in to the group chairman unsigned but with an identification mark known only to the participants concerned. The group then analyzed their response sheets and compiled a group profile using guiding questions such as: How many of us prefer to sit quietly and listen? How many feel ready for leadership roles now? What does this mean in terms of doing a good job as a team? How can we improve group competence?

It is significant that rather than stay anonymous, group members decided to disclose their responses to their groups, so that discussion could be more directly helpful to them. This was a good beginning since it indicated that a climate of mutual acceptance and trust had been established by participants most of whom were total strangers to each other only a day earlier. It also indicated a beginning awareness of the importance of examining attitudes and

feelings as a means to better understanding one's behavior when confronted with change. (For a system of using symbols to safeguard anonymity, see Srinivasan, Lyra, Workshop Ideas for Family Planning Education, *"First Steps.")*

It would have been easy at this point for workshop leaders to help groups examine the similarities or differences between their profiles and their perceptions of how villagers tend to feel in formal group situations. However, to do so at this point would have prejudiced a later exercise on field workers' perceptions of personality factors among rural adult illiterates. It was therefore left up to each group to make any connections with parallel situations which the group itself might spontaneously identify.

2. ENTERING YOUR OWN SPACE – *self-awareness exercise*

Part one

Participants are given the following instructions:

"On a sheet of paper draw two squares of the same size. In the first square put down as many phrases as you wish that best describe your current situation in life. These can include professional, personal, social, or economic characteristics – anything you choose to describe your current position in life."

After several minutes, the participants are told:

"In the second square, write down phrases to describe how you would like to be five years from now. What situation would you like to be in five years from now?"

Again, after several minutes, participants are instructed:

"Now look at both squares. Try to imagine yourself in the situation you described in the second square. Can you really visualize yourself being in that situation? Is it difficult to imagine? Was there a big difference between your current situation and the aspirations you described in the second square?"

Part two

Participants are then asked to imagine themselves to be some rural person whom they know. The exercise is repeated, with the participants projecting themselves into the role of rural people.

Reactions to both parts of this exercise can be left for discussion within the smaller groups. The purpose of the exercise is to get participants to think about their own priorities and aspirations, as well as to think about how they perceive those of the rural person. A second exercise, "Entering Your Own Space," carried the self-search a little further, this time related to aspirations levels.

Comment

When I first designed this exercise I only used Part One. The purpose was to help the participant first of all to assess his present life situation as well as possible by spontaneously listing his thoughts about good or poor aspects of his life just as they occured to him. In the second square or "Space" he would then list his aspirations for a better life. By not disclosing ahead of time what the participant was to do with space two, a significant discussion may be expected of the differences in aspiration levels revealed by a simple (and subjective) comparison of the two spaces, after they have both been completed. Part Two of the exercises was added to help participants make the connection between their own responses and those of the villagers with whom they may be working, in visualizing a higher quality of life.

In Part Two, participants must attempt to project themselves into the situation of an average villager and repeat the space-filling activity from the villager's standpoint. Even though Part Two is hypothetical, a comparison of the two parts of this exercise tends to open up a lively discussion of what aspiration levels seem realistic in different contexts.

How do participants feel about their own capacity to visualize vividly a different future "space" for themselves? Would it be easier or more difficult for a rural adult to do the same? Why?

Do participants believe that rural people's aspirations are markedly different in content from that of the more urbanized poor? Or the urban middle class? Are they different in intensity?

3. RURAL ADULT CHARACTERISTICS —*self-awareness exercise*

Part One

Each person is asked to list on a piece of paper five characteristics of rural adults. When this has been done, individually, one participant goes to the blackboard and begins to tabulate on one side of the board the characteristics as they are called out by participants in turn. The tabulation is in three columns: Positive, negative, and in-between. There is usually much discussion about where a certain characteristic should belong. For example some may feel that "reserved" or "humble" are positive qualities while others may disagree. "Angry" too is seen as positive in some sub-cultures while others will see it as negative. The judgment as to where, in the three columns, a given quality belongs, is left entirely for the group to decide. The group leader does not intervene even if invited to. Also it is very important NOT to discuss the results of this tabulation. (For example, to comment on whether the total picture seems too negative or too rosy or not realistic would prejudice the second part of the exercise.)

The group leader need not ask these questions as such, but gently guide the discussion towards this type of reflection. Much of the comparative analysis will come about spontaneously if the participants have enjoyed doing Part One of the exercise. They tend to carry the animated discussion into Part Two.

Part Two

Next, each participant is asked to think about a rural adult he knows fairly well. Keeping that particular rural adult in mind, each person is then to write down five characteristics which apply to his chosen rural adult.

The responses to the second part are also tabulated in sep-

arate columns on the board and the totals of the two sets of columns are compared.

Comment

Whatever the difference in the results of Parts One and Two, this exercise focuses the group's attention on how well they know the rural people as individuals and not as stereotypes. The purpose of the exercise is to help field workers analyze their own perceptions of the target group with whom they work.

Part Two is directed at misconceptions concerning rural adults. The effectiveness of the exercise again depends on the participants' completing one part without being aware of what they are expected to do next. By and large the responses of the first half (generalized or stereotyped concept of the adult illiterate) tend to be much more negative than the second half in which participants are describing an individual villager. This opens up consideration of ways to relate more effectively to rural people and understand them from their own perspective and value-base.

4. BROKEN SQUARES – *exercise for human relations in problem solving.*

This exercise is described in *A Handbook of Structured Experiences for Human Relations Training.* Vol. 1, edited by J. William Pfeiffer, and John E. Jones. Participants are divided into groups of six: five game participants and an observer/judge. Each game participant is given a set of Broken Square cards, each card an irregularly shaped part of a square. Squares are formed by putting the cards together.

Comment

This game was designed to demonstrate the importance of cooperation in achieving a group goal. Participants try to form six-inch squares by combining their squares as a group. Smaller squares can be made by combining other pieces but this does not contri-

bute to the group goal. Cooperation is only attained when each member of the group tries to understand the other members' needs and recognizes each one's potential contributions to the realization of the group goal.

In a cooperative group all members are actively engaged in mentally putting the pieces together and are sensitive to the needs of others. Each member is willing to give parts of his own square to help others. In this way, a group can quickly realize the goal of the group as a whole. If, on the other hand, participants are more interested in forming their own squares, the goal will be more slowly attained.

The observer notes who is willing to give away pieces, who seems to divorce himself from the struggles of the rest of the group, how many people are actively engaged in mentally putting the pieces together, and other characteristics of group behavior.

Group discussion analyzes the effect of cooperation on problem solving and shares group feelings about the game.

5. PHOTO PARADE – *communications sensitivity exercise*

Participants are divided into two groups. Each group is given two sets of five photographs (the two sets are identical) showing participants and the teacher or facilitator playing different roles, e.g., directive, nondirective, group discussion, lecture, etc., but they are not given any clues as to what each photograph depicts.

Participants are then asked to look at one picture at a time, individually, and to fill the appropriate space in the following form. After considering each picture in this way, they pass it on to the next person on the right and receive a new picture, to be similarly examined, from the person to the left. In this way the photos are moved around the circle. When the full parade of five photographs has been completed, individual responses for each picture are compared and discussed. The group leader should encourage analysis of reasons for interest, activity, etc. observed in particular pictures rather than sweeping conclusions such as "lectures are always a bad strategy in teaching," or "communication should always be two ways." In other words, even though

participants may choose one type of strategy over another for the specific purposes of the self-actualizing process they should not close their minds to other possible uses of other strategies under different circumstances.

Comment

The purpose of this exercise is to help people analyze the various roles that learners and teachers play in different kinds of learning situations. I called this exercise Photo Parade simply as a way of making a virtue out of necessity. The exercise depends on the participants examining a set of photographs minutely enough so that they would be able to fill out the observation form (below), for each situation. Unfortunately I had only been able to get a limited number of photographs and that necessitated passing them around. The name describes the movement of photographs from hand to hand.

By examining each photograph for clues as to the kind of communication that seems to be taking place, and then comparing notes, differences in perception among participants become apparent. This exercise can be a good demonstration of peer teaching; participants learn from each other simply by challenging each other's interpretations and judgments. The group leader has very little to do except to raise a question or two or to encourage more critical observation when needed. The success of the exercise depends, of course, on the right choice of pictures.

PHOTO PARADE OBSERVATION FORM

	PHOTO 1	PHOTO 2	PHOTO 3
1. Who is the expert in this photo?			
(a) field worker	____	____	____
(b) participant	____	____	____
(c) both	____	____	____

	PHOTO 1	PHOTO 2	PHOTO 3
2. What role are the participants playing here?			
(a) passive	______	______	______
(b) active	______	______	______

	PHOTO 1	PHOTO 2	PHOTO 3
3. How many of the participants seem interested?			
(a) few	______	______	______
(b) many	______	______	______
(c) all	______	______	______

	PHOTO 1	PHOTO 2	PHOTO 3
4. How would you classify the communication taking place here?			
(a) from field worker to learners	______	______	______
(b) from learners to field worker	______	______	______
(c) mutual	______	______	______

	PHOTO 1	PHOTO 2	PHOTO 3
5. How would you describe the human relations here?			
(a) authoritarian/dependent	______	______	______
(b) mutual respect	______	______	______

	PHOTO 1	PHOTO 2	PHOTO 3
6. Is the field worker's role in this type of learning situation easy or hard?			
(a) easy	______	______	______
(b) hard	______	______	______

	PHOTO 1	PHOTO 2	PHOTO 3
7. Do you think the approach to learners shown here is appropriate to rural women in			
(a) some situations?	______	______	______
(b) most situations?	______	______	______
(c) none?	______	______	______

6. SERIALIZED POSTERS – *exercise to promote learner participation*

The purpose of this communication tool is to demonstrate to the group that different people can perceive the same things very differently and also that each of these perceptions has its own validity. The tool incidentally gives participants, particularly the more timid or reserved ones, an opportunity to make their viewpoints heard. The fact that interpretations are somewhat different makes the exercise interesting, yet the differences are seldom so great as to make any one participant fearful of being way off the mark. This is a "safe" exercise in that respect. It should be seen however, as only a small step towards a more open, creative involvement.

Sets of posters are prepared ahead of time, each set consisting of four scenes which can be mixed and put in any order to tell a story. To change the story one has only to change the order and to interpret the scenes from one's own personal viewpoint. The group needs to be assured that there is no "right" story. If participants are encouraged to use their imagination freely and not restrict their thinking just to what is in the poster set, the stories can be quite lively. If not, monotony is likely to set in after the third or fourth story-interpretation.

The scenes in the posters should come from village situations themselves or from the environment with which the trainees are familiar. This may require observation interviews or other preparations.

Comment

There are any number of variations which can be introduced into this exercise. For example, if the set contains some "given" pictures for everyone to use and some "options" from which to choose, the participants have more leeway to be creative. One such variation is to give three pictures (to be mixed up and arranged but all three must be used) for illustrating a problem situation for which a decision must be made. Three other pictures are given as optional courses of action. The story teller has freedom to choose one of the three options as a means of continuing his story beyond the decision point. If participants are also allowed to improvise "conclusions" or "outcomes" of the decisions made, the story endings can often be hilarious.

7. FLEXIFLANS – *exercise to encourage learner participation*

Flexiflans get their name from the fact that they are flannel-backed figures with flexible links. I first designed them for a workshop in Indonesia but have also tested them in a small way in other projects. They work best when a large variety of flexiflans have been prepared ahead of time, including different human figures, animals, trees, crops, small objects (e.g., work implements, furniture), houses, or parts of houses, etc. These flannel-backed pieces are laid out on a table and a learner or group of learners is invited to select any pieces needed to illustrate a topic, idea, or episode. The theme must be selected by the narrator and must be something he considers important to communicate to the others.

Since the content of each communication comes entirely from the head of the narrator, a much greater variety of themes come up through the use of flexiflans compared to serialized posters. Flexiflans can also be used in other ways; for example, to resolve conflict if two participants with opposing views of a problem each compose a flannel scene to illustrate differing views of the problem. Differences in perspective can then be discussed more

easily when they are "objectified" instead of remaining at the verbal level.

Comment

The main issue to be faced in the use of learning materials is whether they truly open up communication by learners about concerns meaningful to them, or instead simply engage learners in reacting to concerns that the curriculum designer considered important. The latter would be a disguised form of manipulation. Accordingly it is important for field staff and trainers to be conscious of the degree of openness offered by the materials they use.

For example, the serialized poster is an improvement on the static poster because the learner can rearrange the order of the four posters in a given series and create his own message. This freedom is however limited by the content already built into each picture. While the change in sequence can result in some very interesting personal interpretations of the situation depicted and of the sequence of events, the commentator's imagination is still largely confined by what the artist has portrayed.

On the other hand, the flexiflan gives almost unlimited opportunity for the learners to use their own imagination to communicate any message they wish. The limitation is only in the number and type of flexiflan figures available for use as communication tools. The principle is the same as in communicating with written symbols or with letter or syllable blocks as in the game of Scrabble. A sufficient range of symbols assures freedom of communication. The difference is that by using flexiflans participants can adapt the figures to represent different personalities and this gives them additional flexibility. They can also improvise and add new pictures to the stock, thus expanding their options.

APPENDIX B

Sample Projective Stories

1. Problem drama from Family Life Planning and Functional Education program in Turkey.

2. Situation specific story from AIM program in United States.

The Fight

"You're crazy. Why should I do your job for you?"

"My job!" yelled Elena. "You're the crazy one. No, you're not crazy. You're stupid."

"Listen, Elena, don't talk to me like that. In this house I still wear the pants. Do the dishes, baby. That's your job."

"Well, I have news for you, Leo. I cannot bring home a paycheck and keep the house clean at the same time, not without help. I demand your help."

"Well, lady, you can demand all you want, but I will not have dishpan hands for you or anybody. I work hard all day. I will not spend my nights washing and cleaning. Get me a beer."

Elena turned toward the refrigerator. Her hands trembled as she opened the door and took out the cold beer can. Why should she feel so guilty? Was she wrong to ask her husband to help? Couldn't he see what needed to be done?

Leo was also angry.

"You wanted that job, right?" he said. "Now you have it. That doesn't change your job here at home."

"Leo, I only want you to help me. Is that asking too much? It doesn't make you less of a man. It shows you care."

"I'll show you that I care. You can just quit that crazy job! You'll have all the time you need to clean house and look after the kids and me. You won't be so tired any more and you'll stop nagging me."

"You idiot!" screamed Elena. "How the hell do you expect to pay the bills on what you bring home? If you had any brains in that thick head of yours, you'd . . . Oh, forget it!" she cried as she began to snatch newspapers off of the floor and stack them in a heap.

story by: Cheryl Moore
Corpus Christi, Texas
photo by: Ernie Arbizo

Sample line drawing from Turkey (wheat curriculum)

Çocuk hasta oldu.

The child has become ill.

Sample story from Turkey (tobacco curriculum)

HEALTH IS THE BIGGEST TREASURE

My dear Son,

There is a saying, "Everything starts with health." Don't overlook this saying. Be careful not to become ill in those remote places. Illness can enter through the eye of a needle, but will not leave through a huge door. Be careful with your health, food and cleanliness, my son, don't make us worry about you.

Murat, the boy of Hidir Ali became very ill. He was getting worse every day. They have only one child. Hidir Ali is poor and lonely. What can he do?

We dropped in with your grandmother in the evening. The child was in a very bad condition. You can hardly call it a child. The illness had eaten him up, the poor thing was so healthy before.

Some said, "It is the evil eye."

Hidir went and brought Haydar from Karlikuyu. They melted lead, but it was no use. The child still had a high fever. He had red spots on his stomach, so his mother thought that it was measles, so she bought red refreshments to send to their neighbors. It still was no use. At a glance, the child was dying. His mouth was dry and he did not wink an eye. When he slept he talked in delirium. When he talked in delirium Kirit Ayse said, "Poor child is talking with the angels. It will be over, he'll recover."

Your Aunt Alime came before us and said, "It is typhus fever. Put a bit of cinnamon and thyme in a glass of sugared water, then add a bit of chicken dirt to it and make him drink it. He'll recover immediately."

They did it and made the child drink that stuff. It still was no use. I looked at them. None of them seemed to have any sense at all. They do whatever the others tell them to do.

I said "Hidir, has the world tumbled down on your head? After all, he is only a child. That is not the way to take care of children, whether they are five or ten. Take him to a doctor."

"Oh, come on, Bayram Amca. I can't go to town and take him to a doctor."

Oh, this stubborness! It eats us all. I felt sorry for the child. Suddenly I remembered the midwife. A new midwife had been appointed to our village. She is a very brave girl. My sister, Sati, was ill the other day. She gave her

some pills. Now she feels better. I went to the midwife and told her everything, and took her to Hidir's. She examined the boy. Listened to his chest with her medical things, took his temperature and then returned to me.

"It is a good thing that you let me know about it." She said, "The child has typhoid. No care has been given. It is an infectious disease. First of all, we will put the patient in a separate room and let no one enter his room."

Typhoid, the midwife said is what we call typhus fever. But it seems that we only know the name. Do we know how the others may catch the disease or how to cure it? The midwife told us everything. She saved the life of the child.

As I said before, my son, take good care of yourself. There is nothing like health in the world. Goodbye for now. We all send you our regards and kisses.

Your loving father

APPENDIX C

Sample Forms for Recording Feedback Information

1. Observation Assessment Form
2. Topics for Group Discussion About Barrio Visits

These feedback forms were developed for use during the field technical workshop undertaken by the Philippines Rural Reconstruction Movement and World Education in April, 1975.

OBSERVATION ASSESSMENT FORM

1. What role does the teacher play?
   (Check for each quarter-time period)

	Time Period I	Time Period II	Time Period III	Time Period IV
Directive				
Nondirective				

Examples:

2. How many people were present during the learning experience?

	I	II	III	IV
Women				
Men				
Children				

3. How many women showed interest during the learning experience?

	I	II	III	IV
All				
Many				
Few				
None				

4. How many people participated in the learning experience?

	I	II	III	IV
Women				
Men				
Children				

Examples of participation:

How many of the same women stay from beginning to end?

Reasons for leaving, if any:

5. Number of women who participated
   0 Times
   1 - 2 Times
   3 - 5 Times
   over 5 Times

   Type of participation
   Responding to questions:
   Volunteering information:
   Asking questions:
   Physical involvement:

6. Examples of striking change in individual behavior during learning experience.

   How determined?

7. Examples of striking changes in individual attitudes toward the problem.

   How determined?

8. Any learner comments relating to women's role in economy and society?

   Examples:

9. Any learner comments relating to the learning experience?

   Examples:

10. Other Observations - Other Comments:

    Examples: knowledge gain?
    diffusion of interest?
    applies experience?

Topics For Group Discussion About Barrio Visits

When you returned from your field visit to the barrio ________________ :
(name of barrio)

Did you NOTE down all of the things which were discussed informally with the barrio women?

Did you EVALUATE each topic to determine whether it was something which members of the group felt rural women should be thinking about or was it something that rural women were already thinking about?

Did you DISCUSS to see if you had focused enough on women's *economic role, activities, problems* and *potential?*

Did you try to remember and note down in rural women's own words some of the things they said that indicate their real attitudes, beliefs, feelings, prejudices, or superstitions that you could use in writing stories or in role playing or in preparing other learning materials?

Did you find out what kind of life women lead and whether they have ever attended classes or received training of any kind?
If yes, what impression did they have of that experience?

Did you find out what they would like to learn, when are they available for learning, and where they can best be reached?

APPENDIX D

Background Notes

The following notes are brief descriptions of nonformal education projects mentioned in the text.

BANGLADESH

The Functional Education Program of the Bangladesh Rural Advancement Committee, begun in 1972, was designed to promote changes in attitudes and behavior towards family planning and agricultural technology as well as literacy. The program, funded by Oxfam, was integrated with other BRAC development activities in the Sulla region of Bangladesh. Approximately 60 facilitators were trained in the pilot project and experimental materials and methods were developed. BRAC is now training staff members of other organizations engaged in nonformal education programs throughout the country. For additional information, write to the Bangladesh Rural Advancement Committee, 3 New Circular Road, Magh Bazar, Dacca 17, Bangladesh, or to World Education.

ECUADOR

The Ecuador Nonformal Education Project, begun in 1971, is a joint project of the Ministry of Education in Ecuador and the University of Massachusetts Center for International Development. It is funded under the auspices of the United States Agency for International Development. The emphasis of the project is on functional education, using nonprofessional manpower, and materials created and developed in the field. In addition to working through existing institutions, the project has fostered a noninstitutional approach in which rural villagers are trained in the use of games and discussion techniques as learning activities to support both the development of literacy and numeracy and problem-solving skills. For additional information, write to the Ministry of Education, Quito, Equador, or the Center for International Education, University of Massachusetts, Amherst, Mass. 00102.

ETHIOPIA

The Integrated Family Life Education Project in Ethiopia was undertaken in 1973 by the Ethiopian Women's Welfare Association. The project sought to build on existing knowledge, attitudes, and practices of selected urban, semi-urban, and rural communities to bring about more effective action in literacy, health, nutrition, family planning and agriculture. In its first two years, teaching methodology and materials were developed and tested in three pilot areas, reaching approximately 350 adults. The project has been funded by the United States Agency for International Development through World Education. A new phase extends the project both in geographic area and numbers of participants, and links its programs with those of other agencies in Ethiopia, particularly those of the Foster Parent Plan, and the Family Guidance Association. For additional information, write to IFLE Project, P.O. Box 30104, Addis Ababa, Ethiopia or to World Education.

GHANA

The Department of Social Welfare and Community Development's Family Life Education Project in Ghana aims to help the farm and fishing communities of the Eastern and Central Regions through family life education. In addition to meeting the needs of rural adults with respect to family planning, occupational concerns, nutrition, recreation, and civic life, the program serves as a demonstration model both in teaching techniques and materials production. It also supplies evaluative data as source materials for future program expansion. The two-year project, which began early in 1975, funded by the United States Agency for International Development through World Education, has trained about 40 facilitators and 15 materials developers for some 400 adult

learners. World Education provided technical assistance in staff training and materials production. For additional information write to the Department of Social Welfare and Community Development, P.O. Box M230, Accra, Ghana, or to World Education.

HONDURAS

A National Program of Informal Education in Honduras is being designed under a two-year Unesco project by the Planning Office of the Government of Honduras in cooperation with the Planning Office of the Ministry of Education. It will provide programs of informal education at all levels. The project began in 1975. For additional information write to the Ministry of Education, Tegucigalpa, Honduras, or to Unesco, United Nations Plaza, New York, N.Y. 10017.

IRAN

The National Center for Adult Education and Training in Saveh, Iran has undertaken a nationwide program to train illiterate adults in functional literacy. The program began in 1973, administered by the Iranian Ministry of Education and Unesco with financing by the UNDP and the government of Iran. For additional information, write to the Ministry of Education, Avenue Ekbatan, Teheran, Iran or to the UNDP, One United Nations Plaza, New York, N.Y. 10017

PHILIPPINES: PPRM

A four-year Functional Education for Family Life Planning demonstration project was undertaken by the Philippine Rural Reconstruction Movement (PRRM), with technical assistance from World Education. The stated purpose was to integrate

population and family planning concepts with literacy training. The scope of the project was soon broadened to include other topics such as agriculture, home management, and sociopolitical and cultural concepts, all presented in the context of broad community development efforts. The pilot program, which ended in 1975, included the production and field testing of materials, training of teachers and nonprofessional leaders. The Barangay Technicians Program, in which over 600 village leaders are learning to run nonformal education programs, is an outgrowth of the original program. For additional information, write to PRRM, Bo, Nieves, San Leonardo 2327, Nueva Ecija, Philippines, or World Education.

PHILIPPINES: INNOVATIVE NONFORMAL EDUCATION FOR RURAL WOMEN

The first phase of a Nonformal Education Project for Rural Women was co-sponsored by PRRM and World Education and took place from February to July of 1975. As part of this project, specialists from 11 Filipino organizations took part in a two-week field technical workshop held in PRRM's training compound in Nieves, Nueva Ecija, Philippines. The 30 field-level specialists, representing both governmental and nongovernmental agencies, participated in the development of an innovative process of needs assessment and evaluation. The basic process, the "Self-Actualizing Method," focuses on designing and implementing learning experiences that can maximize learner participation in an educational process geared to their specific needs and interests and offered in nonformal settings most convenient for the learner. Nontraditional techniques heightened the participation of learner both in the educational process and in needs assessment. This process was further developed through field-testing in April and May and recommendations for a long-term program based on SAM were made at the end of the first phase. It is expected that a second phase of the project will begin in 1977. For further information, write to PRRM or World Education.

THAILAND

Beginning as a small pilot project in 1970 and growing into a national program throughout nine regions of Thailand, involving some 400,000 adult learners, the Functional Literacy for Family Life Planning project is administered by the Adult Education Division of the Ministry of Education. The program content has been expanded from the functional literacy level to more advanced adult education and skill training programs. World Education has provided technical assistance in program design, materials production, and staff training. For additional information, write to the Adult Education Division, Ministry of Education, Bangkok, Thailand, or World Education.

TURKEY

The Family Life Planning and Functional Education (FOYSEP) program in Turkey was sponsored jointly by the Ministries of National Education and of Health and Social Assistance. In this pilot project which ran from July 1971 to February 1973, program content was designed to provide simultaneously an effective education in family life planning and improved literacy skills. Eight different curriculum areas were developed and some 80 teachers trained. The project was offered to illiterate conscripts of the Turkish army as well as to the civilian population. It was funded by USAID through World Education. For additional information, write to the Adult Education Division, Ministry of Education, Bakanliklar, Ankara, Turkey, or World Education.

USA: APPERCEPTION-INTERACTION METHOD

AIM is an educational process based on World Education's international experience. It is a synthesis of innovative principles and methods for promoting motivation among adults, encom-

passing materials production and teacher training. Beginning in 1972, World Education worked with private and public agencies to conduct pilot projects, to train teachers and to produce situation-specific materials. AIM materials are in use in various basic education programs in eight states throughout the U.S. Initial funding for AIM came from the Division of Adult Education Programs of the U.S. Office of Education, with additional support from the Jessie S. Noyes Foundation. For additional information, write to World Education.

USA: HENRY STREET SETTLEMENT

The Henry Street Settlement, a social welfare agency, and World Education undertook a staff training program in 1975. The purpose was to expand the agency's community outreach. World Education and Henry Street are currently cooperating on a similar program for disadvantaged and delinquent youth. A workshop trained social workers in innovative educational techniques. Four of those trained in the first workshop are now themselves training a larger group of 15 community workers in program planning, process training, and evaluation techniques, as well as in the use of audio-visuals in teaching and training. The project has been funded by the Arca Foundation and World Education. For additional information write to Henry Street Settlement, 265 Henry St., New York, N.Y. 10002, or World Education.

NOTES

SECTION 1

1. Due to time limitations this analysis could not be expanded to include influences from educational leadership in other parts of the world. The gap is acknowledged and the author hopes that other authors will document such contributions.
2. Ivan Illich, *Deschooling Society* (New York: Harper and Row, 1971), p.1.
3. Ivan Illich, "Education without Schools," in *Farewell to Schools???*. ed. Daniel U. Levine and Robert J. Havighurst (Worthington, Ohio: Jones, 1971), p. 36.
4. Paulo Freire, *Pedagogy of the Oppressed* (New York: Seabury Press, 1970), p. 31.
5. Ibid., p. 59.
6. Noel E. McGinn, "The Psycho-Social Method of Paulo Freire: Some Lessons From Experience," in *Inter-American Seminar on Literacy in Social and Economic Development* (New York: World Education, 1973), p. 10.
7. Rogers himself points out that other experimentation, though proceeding from somewhat different lines of thinking, was coming to similar conclusions at the same time. As an example, he lists educational principles outlined by Nathaniel Cantor, including the following: "The teacher will be concerned primarily with understanding and not judging the individual. The teacher will keep at the center of the teaching process the importance of the student's problems and feelings, not his own. Most important of all, the teacher will realize that constructive effort must come from the positive or active forces within the student." Nathaniel Cantor, *The Dynamics of Learning* (Buffalo, N.Y.: Foster and Stewart, 1946), pp. 83-84.

8. Carl Rogers, *Client Centered Therapy* (Boston: Houghton Mifflin, 1965), pp. 63-64.
9. Edgar Faure et al., *Learning To Be* (Paris: Unesco, 1972), p. 220.
10. B. F. Skinner, *Beyond Freedom and Dignity* (New York: Knopf, 1971), p. 84.
11. Malcolm Knowles, *The Modern Practice of Adult Education* (New York: Association Press, 1971), p. 42.
12. Jack Mezirow, "Educating Adults in Family Planning," *World Education Issues* 1 (1972), p. 1.

SECTION II

1. Kowit Varapipatana, "The Khit-Pen Man," *World Education Reports* 8 (1975), p. 2.
2. Ibid., p. 3.
3. *World Education Projects* 1 (1973), p. 4.
4. Ibid., p. 13.
5. For a detailed description of the teacher training process in Ghana, see Leon Clark, "Consultant's Journal," *World Education Reports* 12 (1976), p. 16.
6. For a detailed description of these games, see Leon Clark, op. cit., p. 20.
7. For a detailed description of the Blindfold Game, see *World Education Reports* 13 (1976), p. 4.
8. *World Education Reports* 12 (1976), p. 18.
9. Two other specialists from World Education collaborated in the Philippines workshop: Catherine Crone, Director of the Department of Program Development and Evaluation of World Education for the research and evaluation component, and Cris Srinivasan of Communication Development Services for audiovisual documentation of the workshop.
10. Alex Osborn differentiates between judicious and creative mental processes in this manner: the judicious mind, he claims, breaks down facts, compares them, rejects some, keeps others, and then puts together the resultant elements to form a conclusion. The creative mind does much the same except that it does not confine itself to the facts in hand. Imagination reaches out for new elements to incorporate into the solution. The result is an idea instead of a simple verdict. Thus while a judicious mind analyses, compares, and chooses, a creative mind visualizes, forsees, and generates ideas.
11. Catherine Crone, "Research on Innovative Nonformal Education for Rural Women." Phase 1. (New York: World Education, 1976).
12. See Appendix A, p. 84.
13. See Appendix A, p. 89.
14. Carl Rogers, *Client Centered Therapy*, p. 6.

SECTION III

1. Dr. Ralinema, co-author of *Learning to Be*, (op. cit.) for example, maintains that elitist teachers are pessimists since teachers doubt the ability of the poor to transcend their situation through intellectual effort.

Bibliography

Adult Education Division, Ministry of Education, Government of Thailand. *Teachers Manual: Techniques of Teaching Adult Education.* Bangkok: Adult Division, Ministry of Education, 1974.

Adult Learning Designs, Foldout Series No. 1 (Philippines), No. 2 (Turkey), No. 3 (Thailand). New York: World Education, 1973 and 1974.

Ashton-Warner, Sylvia. *Teacher.* New York: Simon and Schuster, 1963.

Bruner, Jerome. *On Knowing.* Cambridge, Mass.: Harvard University Press, 1962.

Cantor, Nathaniel. *The Dynamics of Learning.* Buffalo, N.Y.: Foster and Stewart, 1946.

Crone, Catherine. "Research on Innovative Nonformal Education for Rural Women. Phase I." New York: World Education, 1976.

Faure, Edgar, et al. *Learning To Be.* Paris: Unesco, 1972.

Freire, Paulo. *Education for Critical Consciousness.* New York: Seabury Press, 1973.

______.*Cultural Action for Freedom.* London: Penguin, 1972.

______.*Pedagogy of the Oppressed.* New York: Seabury Press, 1970.

Gordon, William J. J. *Synectics - The Development of Creative Capacity.* New York: Macmillan, 1971.

Illich, Ivan, *Deschooling Society???,* New York: Harper and Row, 1971.

______. "Education Without Schools" in *Farewell to Schools.* Edited by Daniel V. Levine and Robert J. Havighurst. Worthington, Ohio: Charles A. Jones, 1971.

Knowles, Malcolm. *The Modern Practice of Adult Education.* New York: Association Press, 1971.

Kowit Vorapipatana. "The Khit-Pen Man." *World Education REPORTS* 8, (1975):1-5.

McClelland, David C. et al. *The Achieving Society.* New York: Free Press, 1967.

__________.*Motivating Economic Achievement.* New York: Free Press, 1971.

Mezirow, Jack. "Educating Adults in Family Planning." in *World Education Issues.* #1. New York: World Education, 1972.

McGinn, Noel F. "The Psycho-Social Method of Paulo Freire: Some Lessons from Experience." *Inter-American Seminar on Literacy in Social and Economic Development.* New York: World Education, 1973.

Nelson, Lois, ed. *The Nature of Teaching.* Waltham, Mass.: Ginn, 1969.

Osborn, Alex F. *Applied Imagination.* New York: Scribner, 1953.

Rogers, Carl. *Client Centered Therapy.* Boston: Houghton Mifflin, 1965.

_______.*Freedom to Learn.* Columbus, Ohio: Charles E. Merrill, 1969.

_______.*On Becoming a Person.* Boston: Houghton Mifflin, 1961.

Skinner, B. F. *Beyond Freedom and Dignity.* New York: Alfred A. Knopf, 1971.

Srinivasan, Lyra. *Workshop Ideas for Family Planning Education.* New York: World Education, 1975.

__________.*The Impertinent Pert Chart.* New York: World Education, 1977.

World Education PROJECTS. No. 1. New York: World Education, 1973.

World Education REPORTS. Vol. 1, Nos. 2-4, Vol. II, Nos. 1-3; Nos. 8-13,. New York: World Education, 1972-1976.

Suggested Additional Reading

Albertson, D. Richard and Hannan, Cecil J. *Twenty Exercises for the Classroom.* Fairfax, Va.: NTL/Learning Resource Corp., 1972.

Apps, Jerold W. *Toward a Working Philosophy of Adult Education.* Occasional papers 36 Syracuse, New York: ERIC, 1973.

Benne, Kenneth et al. *The Laboratory Method of Learning and Changing: Theory and Applications.* Palo Alto, Ca: Science and Behavior Books, 1975.

Brembeck, Cole S. And Thompson, Timothy J. *New Strategies for Education Development.* Lexington, Mass.: D.C. Health, 1973.

Brubacker, James S. *Modern Philosophies of Education.* New York: McGraw-Hill, 1962.

__________. *The Process of Education.* London: Ruskin House, 1972.

__________. *Toward a Theory of Instruction.* Cambridge, Mass.: Harvard University Press, 1966.

Buber, Martin. *I and Thou.* New York: Scribner, 1958.

Cahn, Steven M. *The Philosophical Foundations of Education.* New York: Harper and Row, 1970.

Coombs, Philip H., et al. *New Paths to Learning for Rural Children and Youth.* New York: International Council for Educational Development, 1973.

Creative Education Foundation, Inc. *The Journal of Creative Behavior.* Vol. 6, No. 1. Buffalo, N.Y.: Creative Education Foundation, Inc., 1972.

Churchman, C. West. *The Systems Approach.* New York: Dell, 1968.

Davis, G. and Scott. *Training in Creative Thinking.* New York: Holt, Rhinehart, 1971.

Djukanovic, V. and Mach, E. P., eds. *Alternative Approaches to Meeting Basic Health Needs in Developing Countries.* Geneva: World Health Organization, 1975.

Duncan, Hall. *How Africans See Pictures.* Syracuse: New Readers Press, 1962.

Fordyce and Weil. *Managing with People.* Reading, Mass: Addison-Wesley. 1971.

Gribble, James. *Introduction to Philosophy of Education.* Boston: Allyn and Bacon, 1969.

Hoxeng, James. *Let Jorge Do It: An Approach to Rural Nonformal Education.* Amherst, Mass.: Center for International Education, University of Massachusetts, 1973.

Lowe, John. *The Education of Adults: A World Perspective.* Paris: Unesco Press, 1975.

Lowry, Louis, et al. *Integrative Learning and Teaching in Social Work.* New York: Association Press, 1971.

Luft, Joseph. *Group Processes: An Introduction to Group Dynamics.* Palo Alto, Ca.: Mayfield, 1970.

Maslow, A. H. *The Farther Reaches of Human Nature.* New York: Viking Press, 1971.

May, Rollo. *Man's Search for Himself.* New York: New American Library, 1953.

National Council of YMCA's. *Training Volunteer Leaders.* New York: National Council of YMCA's, 1974.

NTL/Learning Resource Corporation. *A Problem Solving Plan.* Fairfax, Va.: NTL/ Learning Resource Corp.

Nylen, Donald, et al. *Handbook of Staff Development and Human Relations Training: Materials Developed for Use in Africa.* Fairfax, Va: NYL/Learning Resource Corp., 1967.

Parnes, Sidney J. *The Creative Behavior Guidebook.* New York: Scribner, 1967.

______. *The Creative Behavior Workbook.* New York: Scribner, 1967.

______. *Creativity: Unlocking Human Potential.* Buffalo, N.Y.: The Creative Education Foundation, 1972.

______. *A Source Book for Creative Thinking.* New York: Scribner, 1962.

Pfeiffer, J. William and Jones, John E., eds. *A Handbook of Structured Experiences for Human Relations Training,* vols. I-V, *and Reference Guide to Handbooks and Annuals.* La Jolla, Ca.: University Associates, 1974.

Platt, John R., ed. *New Views of the Nature of Man.* Chicago: University of Chicago Press, 1965.

Postman, Neil and Weingartner, Charles. *Teaching as a Subversive Activity.* New York: Delacorte Press, 1969.

Rogers, Carl. *Carl Rogers on Encounter Groups.* New York: Harper and Row, 1970.

Rogers, Everett and Shoemaker, Floyd. *Communication of Innovations: A Cross-Cultural Approach.* New York: Free Press, 1971.

Sanders, N. M. *Classroom Question: What Kinds?* New York: Harper and Row, 1966.

Sanders, Thomas G. "The Paulo Freire Method." In *Fieldstaff Reports: West Coast South American Series.* Hanover, N.H.: American Universities Fieldstaff, 1968.

Schmuck, Richard A. and Schmuck, Patricia A. *A Humanistic Psychology of Education: Making the School Everybody's House.* Palo Alto, Ca.: Mayfield Publishing, 1974.

Schramm, Wilbur. *Communication in Family Planning.* New York: Population Council, 1971.

Simberg, Alvin L. *Creativity at Work.* Boston: Industrial Education Institute, 1964.

Siroka, Robert, et al. *Sensitivity Training and Group Encounter.* New York: Grosset and Dunlop, 1973.

Torrance, E.P. *Education and the Creative Potential.* Minneapolis: University of Minnesota Press, 1963.

————. *Rewarding Creative Behavior.* Englewood Cliffs, N.J.: Prentice Hall, 1965.

Unesco. *Getting the Message Across.* Paris: Unesco, 1975.

Vandenburg, Donald. *Being and Education.* Englewood Cliffs, N.J.: Prentice Hall, 1971.

Ward, Ted. *The Why and How of Evaluation in Nonformal Education.* East Lansing, Mich.: Institute for International Studies in Education, 1973.

Wechsler, Irving, and Schein, Edgar H., eds. *Issues in Training.* Washington, D.C.: National Training Laboratories, National Education Association, 1962.

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